RHONDDA URBAN DISTRICT COUNCIL

REPORT

OF

THE MEDICAL OFFICER OF HEALTH

FOR THE

YEAR 1904.

TREHERBERT :

I. JONES, PRINTER. ETC., TREHERBERT

Printed by I. Jones, Stationers' Hall, Treherbert

RHONDDA URBAN DISTRICT.

Members of the Council.

Councillor LEMUEL PRICE GRIFFITHS, J.P. (Chairman)
,, DAVID WILLIAMS (Vice-Chairman).
,, DANIEL RICHARD JONES.
,, MORGAN LLEWELYN.
,, WILLIAM MORGAN, J.P.
,, EDWARD PHILLIP DAVIES.
,, WILLIAM THOMAS JONES.
,, WILLIAM PHILLIP THOMAS.
,, EDWARD JONES.
,, THOMAS DAVIES.
,, DANIEL WILLIAM JONES.
,, WILLIAM EVANS THOMAS, M.D.
,, THOMAS THOMAS.
,, WILLIAM DUNDAS WIGHT.
,, RHYS SAMUEL GRIFFITHS.
,, EVAN WILLIAMS.
,, JOHN GILMOUR.
,, JOHN DAVID WILLIAMS, J.P.
,, DAVID CHARLES EVANS.
,, DAVID ROWLANDS.
,, THOMAS EVANS.
,, JOSEPH BROOKS.
,, THOMAS GRIFFITHS, J.P.
,, BENJAMIN DAVIES.
,, DAVID SMITH.
,, GRIFFITH DAVIES.
,, WILLIAM HENRY MATHIAS, J.P.
,, THOMAS GEORGE.
,, DAVID EDWARDS.
,, DANIEL EVANS.
Clerk to the Council, WALTER P. NICHOLAS.

The Health Committee—

Councillor RHYS SAMUEL GRIFFITHS (Chairman).
,, MORGAN LLEWELYN.
,, WILLIAM PHILLIP THOMAS.
,, DANIEL WILLIAM JONES.
,, WILLIAM EVANS THOMAS, M.D.
,, DAVID CHARLES EVANS.
,, DAVID ROWLANDS
,, BENJAMIN DAVIES.
,, GRIFFITH DAVIES.
,, DAVID EDWARDS.

Officials of the Health Department.

Medical Officer of Health
and
Medical Superintendent of the Fever Hospital:
J. D. JENKINS, M.D., B.S. (London), D.P.H., &c.

Matron of the Hospital—MISS ROSE E. SMITH.

SANITARY INSPECTORS.

No. 2 District—	J. TOWY THOMAS	(Certif. Sanit. Institute)
,, 1 ,,	WM. WILLIAMS	,,
,, 6 ,,	GWILYM REED	,,
,, 3 ,,	JAMES WILLIAMS	,,
,, 4 ,,	DANIEL W. JONES	,,
,, 5 ,,	LEWIS T. DAVIES	,,

Clerks—EVAN R. JENKINS.
EVAN EVANS.

In charge of Disinfector:—JAMES ALESBURY and RICHARD HERN.

TELEPHONE NUMBERS.

Medical Officer of Health—Office ...	15a Pentre P.O.
,, ,, ,, ...	7c Pentre Nat.
,, ,, Residence ...	47x Pentre P.O.
Fever Hospital	47 ,,
Inspector No. 1 District	2 Treherbert ,,
,, ,, 2 ,, ...	17x Pentre [illegible] ,,
,, ,, 3 ,, ...	8 Tonypandy ,,
,, ,, 4 ,, ...	13 ,, ,,
,, ,, 5 ,, ...	3 Porth ,,
,, ,, 6N ,, ...	2 Ferndale ,,

RHONDDA URBAN DISTRICT.

Area	23,884 acres
Population (Census April 1st, 1901)	113,735
Population (Midsummer, 1904)	122,310
Rateable Value	£527,210
Birth-rate	39·7 per 1000
Average of previous 10 years	40·3 ,, ,,
Death-rate (all causes)	19·1 ,, ,,
Average of previous 10 years	19·8 ,, ,,
Zymotic Death-rate	3·76 ,, ,,
Average of previous 10 years	3·5 ,, ,,
Death-rate from Phthisis (Consumption)	·94 ,, ,,
Average of previous 10 years	·97 ,, ,,
Infantile Mortality	190
Average of previous 10 years	203

INDEX TO CONTENTS.

A

PAGE

Abatement of Nuisances 105, 106
Accidents in Collieries... ... ... 36, 103, 114
Acts—Adoptive 46
,, Notification 46
,, Prevention 46
,, Public Health Acts (Amendment) ... 46
Administration 57
Ages at Death 113, 114
Alesbury, James 48
Appletree, Dinas 44
Area 6

B

Bakehouses 108
Births 9, 10, 64, 67
,, in Wards 10, 65
Birth-rates 9, 64, 67
,, ,, Comparative 9, 64
,, ,, in Wards 10, 65
Blaencwm Houses 44
Bush Houses 45

C

PAGE
Chapels 104
Churches 104
Classification of Diseases 113, 114
Colliery Accidents 36, 103, 114
Complaints 106
Cost of Scavenging 41
County Laboratory 26
Cowsheds 108
Cymmer Houses 44

D

Dairies 108
Deaths 11, 13, 67
,, at Public Institutions 12
,, Diseases causing most 13
,, in Wards 68, 76
Death-rates 12, 67
,, Comparative 12
,, in Wards 13, 68, 77
,, in Great Towns 69
Diarrhœa 30-33, 98
,, Prevention of 32
Diphtheria... ... ... 24-26, 87-92
,, Reduction of Secondary Cases ... 25
Diet Cards, Influence of 32
Disinfection 47, 48
District Population 62
District Rates 63
Dirty Houses 105
Drains Blocked 105

E

Earth Temperature 98
“ Equifex ” Disinfector 47
Evans, Evan 57

F

PAGE

Factory and Workshop Act ... ... 57-59, 107.
Fernhill Houses 44

G

Great Towns 64, 69, 72, 73
Griffiths, Inspector Gwilym 29

H

Hern, Richard 48
Hospital 37-40
House Accommodation 55-57
Houses occupied in Wards 65. 68
Houses passed in recent years 56
Hughes, J. E. Reports by 51

I

Illegitimacy 10, 11
Illegitimate Births 10, 66
Illegitimate Birth-rate corrected 10, 11
Illegitimates, Deaths of 11
Infantile Mortality 15, 16, 70
,, ,, compared with Great Towns 15, 72
Influenza 36
Inquests 36, 103, 114
Inspectors' Work 105-107

J

Jones, W 55

L

L.G.B. Tables 109-114
Lodgers, Number of 75, 85, 87, 95
Lodging Houses 45, 108
Llewelyn, Evan 63

M

PAGE

Mason's Gasifier 43
Measles 19-21
,, School Influence on 20, 21
Meteorology 98, 115-118
Midwives 34
Midwives Act 34
Milkshops 108
Mortality, Infantile 15, 16

N

New Houses 104
Notifications 86
Nuisances Abated 105, 106

O

Offensive Trades 108
Owen, Evan J. 57

P

Penny-Rate, Value of 63
Periodical Inspections 108
Persons per House in Infected Houses ... 75, 85, 87, 95
Phthisis 35, 101, 102
Plans Passed 104
Police Court Proceedings 46, 47
Pontypridd Waterworks Company .. 54, 55
Population 7-9, 62
,, in Wards... ... ... 65, 68
Powell, W. 14
Puerperal Fever 34, 99, 100

R

PAGE

Rainfall 98, 115-118
Rateable Value 63
Refuse Destructor 43
,, Disposal 40-43
Reports Presented 46

S

Scarlet Fever 21-23, 78-84
Scavenging... ... ... 40—43
,, Cost of 41
,, Systems of 42, 43
Schölberg, Dr. H. A. 26
Seventy Six Great Towns 64, 69, 72, 73
Sewerage 43-45
Slaughterhouses 108
Small-Pox 18-19
Smith, Miss R. E. 38
Still-Born Children 14
Subsoil 6

T

Thomas, Inspector J. Towy 29, 57
Topography 5
Typhoid Fever 27-30, 88-97
,, ,, at Cymmer 27
,, ,, epidemic at Ystrad and Trealaw 28, 29

U

Uncertified Deaths 13, 14
Unconnected Houses 44, 45

W

PAGE

Water, Action on Lead 50, 53
,, Consumption per head 53
Water Supply 48-55
,, ,, Blaencwm 50
,, ,, Gilfach Goch 50
,, ,, Private Companies 49, 54
Whooping Cough 23, 24
Williams, George 32
Williams, Inspector James 29, 57
Williams, Dr. W. 26
Workshops and Workplaces in Districts ... 107
,, ,, ,, in Wards ... 59

Z

Zymotic Deaths 16, 74
,, Death-rate 17
,, ,, Comparison England & Wales 16, 75
,, ,, in Great Towns ... 17, 73
,, ,, in Wards 17, 18
,, Diseases ... ... 16—18

CORRIGENDA.

p. *d*—in the introductory part, bottom line of page, delete the "N"

p. 20—Seventh line from bottom, delete the comma (,).

p. 22—Fourteenth line from top, delete "persons"

p. 44—Thirteenth line from bottom, for "66" read "16"

p. 51—Fourteenth line from top, delete the comma (,).

p. 56—Eighth line from bottom, for "reasonable time," read "within reasonable time."

p. 57—Second line from top, for "shops, hotel," read "10 shops, 1 hotel."

p. 75—First line, for "Composing" read "Comprising."

RHONDDA URBAN DISTRICT COUNCIL.

ANNUAL REPORT

OF

THE MEDICAL OFFICER OF HEALTH

FOR 1904.

To the Chairman and Members of the Council.

Gentlemen—

I beg to submit to you my Annual Report relating to the vital statistics and the general sanitary, condition of your district in the course of the year 1904.

Although the figures pertaining to the year under consideration compare unfavourably with those of the previous year, an extension of the period of comparison from one to ten years shows the year 1904 in a more favourable light for its general death-rate,—19·1 per 1000 of the living population,—is lower by ·7 per 1000 than the average for the ten previous years, no fewer than seven of which were attended by higher death-rates.

One of the most satisfactory features presented by the sanitary history of the year was the reduction in the total number of cases of notifiable diseases. This diminution was most noticeable in the case of Diphtheria and Scarlet Fever; on the other hand, Typhoid Fever, in consequence of the serious epidemic which occurred at Ystrad and Trealaw towards the end of the year, was exceptionally prevalent, the number of cases of this disease being the highest recorded since the adoption of the Notification Act in 1894. Notwithstanding this increased prevalence the death-rate from this disease has been exceeded four times during the last decennium.

The list of special problems which call for the attention of the Council has not been reduced in the course of the year. On the contrary, recent legislation has served to widen the sphere of activity and to increase the responsibilities of Sanitary Authorities, with the result that the list has been lengthened rather than shortened.

The following may be mentioned as the problems which demand the earliest attention of the Council, their urgency and respective importance, in my opinion, being indicated by the order of precedence in the list :—

1st—The provision of a more adequate water supply.

2nd—A more sanitary system of refuse disposal.

3rd—The introduction of a system of inspection of the Council's schools and of the scholars taught therein, in accordance with the powers conferred upon the Council by the Education Act.

I am.

Yours faithfully,

J. D. JENKINS.

June, 1905

TOPOGRAPHY.

The district, with an area of 23,884 acres, is about 12 miles long by about 4¾ miles across at its widest part. It is irregularly oval in shape, its greatest width lying between a point close to the junction of Mountain Ash, Aberdare, and Rhondda Urban Districts at Blaenllechau, and a point south-west of Gelli, on the boundary between the Rhondda and the Ogmore and Garw Urban Districts. The district as a whole consists of two narrow, tortuous valleys, which gradually approach each other in their course southwards, and join at Porth, and thence the single valley so formed runs a short course before merging into the upper end of Pontypridd Urban District at Trehafod. The two valleys, running at first at some distance from each other, together with the single valley formed by the junction of the other two, are so arranged that they resemble an irregularly-shaped Y. The stem of the Y is formed by the portion of the district extending from Trehafod to Porth, and is over a mile long. The limbs, of unequal length, are formed by the Rhondda Fawr valley, which is about 9½ miles long, and by the Rhondda Fach valley, which is of a length barely 6½ miles. Both the valleys at their upper extremities end blindly, or form *cul-de-sacs*; their lateral boundaries are formed by steep hills, which vary in height from about 560 ft. on either side of Trehafod, to 1,340 ft on the north-east of Maerdy, and 1,742 on the south-west of Treherbert. The Rhondda Fawr and the Rhondda Fach valleys are separated by a steep ridge—Cefn Rhondda—which rises from a point of 600 ft. just above Porth to a point 1,692 ft. near the upper extremities of the district. The Rhondda River— formed at Porth by the junction of Rhondda Fach and Rhondda Fawr rivers—is 240 ft. above sea-level at the lowest point in the district, at Trehafod, while the Rhondda Fawr river attains an elevation of 720 ft. at Blaenrhondda and the Rhondda Fach the still greater elevation of 920 ft. at Maerdy.

The highest point in the district is Carn Moesau, which is 1,950 ft. high, and is situated at the upper end.

The valleys are very narrow, and allow in many places only sufficient space for the three R's—river, road, and railway. Although the district is a large one, the area actually built upon is comparatively small, for suitable and convenient building ground can be obtained only in close proximity to the river. Here and there, however—as at Treorchy and Ton—the valleys open out a little, and it is mainly at these expansions that considerable numbers of houses have been erected. Leading out of the main valleys are a few side valleys, of which Cwmparc, Clydach Vale, and Cymmer are the most important.

The prosperity of the district is entirely dependent upon its coal, which, in its steam-raising properties, is inferior to none.

THE SUBSOIL.

The Coal-bearing Strata are overlain by Pennant Sandstone, of which the large majority of the houses in the district are built. Scattered over the district are small areas of clay underlying peat, the latter being sufficiently abundant in some portions of the district to affect the colour and taste of the water. At the few expanded portions of the valleys the rivers are bounded by meadows whose soil is alluvial in character.

AREA.

The district has an area of 23,884·810 acres and thus forms the most extensive Urban District in the County of Glamorgan, the next in size being Margam Urban District with an area of 18,417 acres, and a population of 9,014 at the last census.

The Rhondda Urban District is however exceeded in area by seven out of the nine Rural Districts in the County.

POPULATION.

122,310.

The above figure is the Registrar-General's estimate of the population of the district at the end of June, 1904. It is based on the supposition that the rate of increase ascertained to have taken place during the inter-censal period 1891-1901 has been maintained up to the present time. This assumption is not justified by the subsequent census enumeration in every case in which the method is applied, and it is not improbable that it will be found after the next enumeration that this district, although continuing to grow rapidly, will not have succeeded in maintaining as high a rate of increase as that experienced during the last intercensal period. As however a comparison of the vital statistics of our district with those of the other 75 great towns are best made by means of the Registrar-General's returns, based upon estimates arrived at in the way already indicated, it is advisable to employ the figure which heads this section in most of the statistics in this report.

The accuracy or inaccuracy of the estimate may be tested by one or more of several methods, of which two have been applied before the above figure was adopted. In the first place, the difference between the number of births and and the number of deaths recorded in the Rhondda since the last census enumeration has been added to the last census population. This difference is known as the "natural increase." By this method the estimated population for 1904 is 122,503 persons.

In the second place, the number of houses passed for occupation since April, 1901 (date of last census) has been added to the number found to be occupied at that date, and the total thus obtained multiplied by the average number of persons per house results in a figure, 122,917, which approximately indicates the number of persons living in the district at the middle of the year. In the application of this method it is not necessary to make allowances for houses which may have become untenanted during the time subsequent to the last census, for it is known that such are very few. As regards the numerical relation existing between the houses and the population, the average number of persons per house showed a considerable diminution in 1901 as compared with 1891, and there is reason for believing that this tendency towards improvement has been a progressive one up to the present time. This view is lent support by a fact elicited in the course of the investigation in connection with the typhoid epidemic which occurred towards the end of the year. It was then ascertained that the average number per house in 1,335 houses was only 5.8 as compared with 6.5 in 1891, and 5.92 in 1901, both the latter being applicable to the whole district.

It may be seen that there is no great disparity between the three estimates arrived at in three different ways, the two extremes being 607 apart from each other, while the figure which, as already stated, I intend using for the purpose of this report, occupies the lowest position, and is therefore the most unfavourable to the vital statistics of the district.

In point of population the Rhondda has not altered its relative position in the list of those towns classified together as "great" by the Registrar-General in his periodical reports. Of these 76 large towns there are only 23 whose estimated populations for 1904 exceed that of the Rhondda.

Taking the average for the whole of the large area designated "Rhondda," density of population is only 5.1 persons per acre, but owing to the hilly nature of the district there are very large areas altogether unbuilt upon.

Table 1 in the Appendix gives the population, number of houses, &c., in each census year since 1801. The population has increased five-fold in 33 years.

BIRTHS.

	1904.	Average of Ten Years. 1894-1903.
Number of Births	4860	4349
Birth-rate in Rhondda	39.7	40.3

The total number of births registered in the district in 1904 amounted to 4,860, or 37 fewer births than in the previous year. This absolute decrease in the number of births together with the undoubted increase in the population implies a considerable lowering of the birth-rate.

Calculated upon an estimated population of 122,310 persons in the middle of the year 1904, the number of births already given is equivalent to a birth-rate of 39·7 per 1000 persons living. This is the first occasion on which the rate has not exceeded 40.0 per 1000 since the year 1899 in which year it was as low as 37.5 per 1000. Notwithstanding this decrease, Rhondda still maintains its position at the head of the 76 "large towns" as that possessing the highest birth-rate for the year 1904, the next highest being Merthyr Tydfil with a rate of 38.5 per 1000.

The "natural increase" in the population, or the excess of births over deaths, throughout the year amounted to 2515 persons; this number is below that for last year by 384, partly because of the diminution in the number of deaths but mainly on account of the higher death-rate belonging to the year now under consideration.

The birth-rate in England and Wales in 1904 was only 27.9 per 1000 of the population, which is 0.5 per 1000 below the rate in 1903, and also lower than the rate in any other year on record. Compared with the rate for England and Wales as a whole, that for Rhondda is no less than 11.5 per 1000 higher.

The first quarter of the year contributed the largest, and the second the smallest number of births.

Contrary to the usual experience, the number of girls born during the year exceeded that of boys by 14, the totals being 2437 and 2423 respectively.

The smallest number of births was recorded in Ward 1, and the largest number in Ward 10; the lowest and the highest birth-rates occurred in Ward 8 and Ward 5 respectively, the former showing a rate of 30.4, and the latter of 45.9 per 1,000 living (Table 5).

ILLEGITIMACY.

During the year 100 illegitimate births were recorded, rates of 20 per 1,000 of the total births, and of ·81 per 1,000 of the population, being thus occasioned (Table 6). The corresponding rates for London during the same period were 38 and 1.1 respectively.

These rates are considerably under the average for the last 10 years and compare very favourably with those for the country as a whole. But as the Registrar-General points out, "the total population is not, however, the most satisfactory standard by which to measure the illegitimate birth-rate, because it does not take account of the age constitution of the population, and particularly the age constitution and civil state of the female population of conceptive age." Thus the proportion of unmarried and widowed women between the ages of 15 and 45 in the

Rhondda at the last census was 7.5 per cent. of the total population, and if we assume that the constitution of the population, as regards age and sex, has remained approximately the same, calculation provides us with the number of unmarried and widowed women aged 15-45 living in the district in 1904; this number was 9173. Therefore the proportion of illegitimate births that occurred in the Rhondda during 1904 was 10.9 per 1,000 unmarried and widowed women between 15 and 45 years of age. This figure compares unfavourably with the 8.4 per 1,000 for England and Wales in the year 1903.*

In the course of the year under consideration 32 of the deaths recorded in this district were those of illegitimate children, of whom 30, or 94 per cent. were under one year of age. The infantile mortality among the illegitimates thus amounted to 300 per 1,000 births and compares very unfavourably with the rate for the whole of the population—190 per 1,000 births.

DEATHS.

Number	... .	2,345
Rate per 1,000 in	Rhondda	19·1
,, ,,	76 large towns ...	17·2
,, ,,	England and Wales ...	16·2

There were registered 2,301 deaths throughout the district in the course of the year now under consideration. Allowance has however to be made, on the one hand, for the deaths of those persons who, although belonging to the district, died elsewhere, and on the other hand for the deaths of those who died within the district, although not residing within the district. In the former category there were 56 persons, most of whom died at Pontypridd Workhouse, Bridgend Asylum, or Cardiff Infirmary; in the latter category there were 12 persons, the large majority of them having been inmates of the new Llwynypia Union Workhouse, into which paupers are admitted from the whole of Pontypridd Union, of which the Rhondda Urban District is but a part. The nett total thus arrived at amounts to 2,345 deaths for the whole year, and is equivalent to a death-rate of 19·1 per 1,000 of the living population.

---

* The figures for the whole country for the year 1904 are not yet available.

As compared with the ten previous years, the number of deaths for 1904 has been exceeded only on two occasions in the years 1899 and 1901. A fair comparison however can only be made when due allowance is made for the increase in population. When, therefore, the *death-rates* over the same period are reviewed, it is seen that the year 1904 does not compare unfavourably with the majority of the years constituting that period, for seven out of the ten years were attended by higher rates (Table I. Appendix). The average death-rate for the years 1894-1903, was 19·8 per 1,000, as compared with 19·1 per 1,000 in 1904 (Table I.)

When the death-rate for the Rhondda Urban District is compared with the death-rates pertaining to the 76 Towns referred to by the Registrar-General as "Great" or "Large" it is seen that Rhondda occupies a somewhat unfavourable position among the number, there being only 16 of the the said large towns which occupy a more unfavourable position. The death-rates of these towns vary from 8·4 per 1,000 belonging to Hornsey, to 21·9 per 1,000 belonging to Liverpool, the average for the 76 Towns being 17·2 per 1,000 (Table 9).

The diseases which contributed most largely to the death-rate in Rhondda were Epidemic Diarrhœa, Lobular Pneumonia, Bronchitis, Heart Disease, Phthisis, and Measles, with the respective totals of 211, 208, 176, 133, 115, and 102. A comparison of the death-rates in the several district wards elicits the fact that the death-rate has fluctuated considerably the difference between Ward 1 with a rate of 16·8 per 1,000 and Ward 6 with 25·9 per 1,000, being no less than 9·1 per 1,000.

A further analysis shows that in the case of Ward 1 the rate pertaining to each of the zymotic group of diseases with the single exception of Scarlet Fever was lower, whereas in the case of Ward 6 the same rates with the exception of that caused by Whooping Cough were higher, than the average rates for the whole district. (Tables 8 and 17).

The number and percentage proportion of the deaths divided into the respective age groups which occurred in the Rhondda during the year were as follow :—

925, or 39 per cent., under 1 year of age.
379, or 16 per cent., over 1 year and under 5 years.
90, or 4 per cent., over 5 and under 15 years.
109, or 5 per cent., over 15 and under 25 years.
619, or 26 per cent., over 25 and under 65 years.
223, or 10 per cent., over 65 years.

UNCERTIFIED DEATHS.

During the year, 2,301 persons were registered as having died in the district. The number certified by Coroners amounted to 135, while 19 were uncertified; the rest were certified by registered medical practitioners.

In the case of the uncertified deaths, which amounted to only ·8 per cent of the total, as compared with 1·1 per cent of the total for the 76 large towns, the following causes of death were given by the Registrars :—

Convulsions	8
Debility	7
Heart Disease ...	1
Intestinal Obstruction	1
Premature Birth ...	2
	19

Of the total, 8 were only a few hours old at the time of death.

STILL-BORN CHILDREN.

I am indebted to Mr. Powell, the Clerk to the Burial Board, for the following return of the number of still-born children brought to the three cemeteries for burial during the years 1894-1904.

		Average of 10 years.
1894	246	**283**
1895	256	
1896	295	
1897	229	
1898	210	
1899	271	
1900	312	
1901	348	
1902	333	
1903	333	
1904	***301***	

INFANTILE MORTALITY.

	1904	Average for the 10 years. 1894-1903
Rhondda per 1,000	190	203
76 Large Towns	160	
England and Wales	146	149

By Infantile Mortality for any particular year is meant the relation between the number of deaths of children under one year of age, to the number of births which have occurred in the course of that year. This form of expression has the advantage that it is independent of and uninfluenced by any error which may be made in an estimate of the population, because the absolute numbers for both births and deaths are obtainable from the district Registrars

During the year 1904, there were 925 deaths of infants under one year of age belonging to our district, and during the same year 4,860 births were registered; it therefore follows that the infantile mortality figure is 190 per 1,000 births.

As compared with the ten previous years, the infantile mortality for the year 1904 is the lowest with the exception of those of the years 1900, 1902, and 1903 (Table I.), a general tendency thus being shown towards a lowering of this rate for the district.

The relative position occupied by our district as compared with the 76 large towns is not a very satisfactory one, for Rhondda is the 69th on the list whereas it was the 50th last year. The extreme rates are 87 per 1,000 for Hornsey, and 228 per 1,000 for Burnley.

The disease which contributed most largely to this lamentable loss of life was Infantile Diarrhœa which occupied such a prominent position in our death-records throughout the summer months and a rate from which constituted nearly one-half the total death-rate from the seven zymotic diseases.

It is safe to assert that a very large proportion of the deaths of infants from Diarrhœa are avoidable, and are due to errors in dieting committed by young and inexperienced though well-meaning mothers. The last census showed that an exceptionally large proportion, viz.: 29 per 1,000, of the married women of the Rhondda were at that time under 21 years of age, and it is easy to realise how often under such conditions, food utterly unsuited for the digestive organs of children of tender age may be given with the best intentions, but very frequently with disastrous results. It may be added that the whole of the harm thus wrought does not end with the deaths thus recorded, but untold mischief is also caused by the unrecorded illnesses which serve to undermine the constitution and to interfere with the growth of many of the children who form the rising generation.

Table 10 shows the number of deaths caused by the diseases to which childhood is most particularly prone.

ZYMOTIC DISEASES.

	1904.	Average of 5 years. 1899-1903.
Total number of deaths in Rhondda from Zymotic Diseases	460	449
Zymotic death-rate for Rhondda. ...	3·76	3·92
Zymotic death-rate for 76 Large Towns	2·49	
Zymotic death-rate for England & Wales	1·94	1·86

Under the term "Zymotic Diseases" are grouped the following, Small-pox, Measles, Scarlet Fever, Diphtheria, Whooping Cough, Typhoid and other continued Fevers, and Diarrhœa.

The number of deaths throughout the district caused by this group of diseases during the year 1904 reached the total of 460, equivalent to a zymotic death-rate of 3·76 per 1,000 living per annum This rate is slightly in excess of the average rate for the last ten years, but is to about the same extent lower than the same rate for the last five years. (Table 14.)

As in the case of the 76 Large Towns, the mortality due to the zymotic diseases in Rhondda has considerably increased since the previous year, most of the members of the group having been unfavourably affected by the conditions which obtained during that period. As in the case of the Infantile Mortality so also in the case of the Zymotic death-rate, Rhondda occupies a far from satisfactory position among the remaining 75 Large Towns, only seven of which show less favourable figures. (Table 13.)

As compared with the previous year 1903, those diseases of the zymotic group, which were attended by higher mortality rates in the year 1904 were Measles and Diarrhœa which together accounted for the whole of the increase in the zymotic death-rate ; on the other hand Scarlet Fever, Diphtheria, and Typhoid Fever, caused fewer deaths in 1904 than in 1903, whereas that of Whooping Cough remained stationary (Tables 14 and 15).

When we compare the vital statistics of the ten Wards, it is seen that Ward 1 with a zymotic death-rate of 2·4, and a general death-rate of 16·8 per 1,000, has maintained the position which it occupied in 1903 as the healthiest Ward in the district; on the other hand Ward 6 with a zymotic death-rate of 6·6, and a general death-rate of 25·9 per 1,000 is at the other extreme as the Ward presenting the most unfavourable figures (Tables 16 and 17).

SMALL-POX.

The Rhondda escaped a visitation from Small-pox throughout the year now being considered. Several other large towns were less fortunate, but on the whole this disease was less prevalent throughout the country than it had been for two or three recent years. In London the number reached a total of 489 cases throughout the year, and certain towns in the Midlands such as Leicester with 297, Nottingham with 291, and Derby with 209 cases were considerably troubled. Gateshead, Newcastle-on-Tyne, South Shields, and Bradford, were also among the suffering towns, the aggregate in the four amounting to close on 1,000 cases. These facts may help to remove any impression which may have been formed that the disease is not at present a reality that requires the early provision of means wherewith to cope with it. The introduction of small-pox cases into our district would still find us insufficiently prepared and all efforts directed towards the prevention of its spread would be almost hopelessly handicapped by the lack of a special hospital in which to isolate the cases. The existing fever hospital is being utilized for the isolation and treatment of cases of typhoid fever and diphtheria, and ever since its opening in March, 1902, there has been no time when it could have been emptied of all patients without the loss of a very considerable amount of time and without exposing at least some of the patients so sent out to undue risk.

Apart from all other considerations, the loss of time involved would be of paramount importance, for a failure to adopt the usual measures immediately upon the discovery of one or more cases would greatly increase the opportunities given the disease to spread.

Possessed of a due appreciation of this fact, the Health Committee have, at the time of writing, made arrangements to view several sites for the purpose of taking steps to secure one upon which a hospital for the reception of small-pox patients may be built.

MEASLES.

	1904	Average of 5 years. 1899-1903
Number of deaths	102	48
Death-rate per 1,000, Rhondda ...	·83	·41
,, ,, 76 large towns ...	·47	—
,, ,, England and Wales	·36	·32

In marked contrast to the immediately preceding year, this disease was prevalent throughout the year 1904, and was the cause of the large number of 102 deaths, equivalent to a death-rate of ·83 per 1,000 living. Nearly all the fatal cases were under five years of age, there being only two above that age. Of any one year of life, the most fatal was the first, for 32 per cent. were under twelve months old.

The disease was generally distributed, all the wards having contributed to the total number of deaths, wards 6 and 10 with 20 and 23 fatal cases respectively being the most affected.

As Measles is not one of the notifiable diseases, it is impossible to accurately estimate the number of children who contracted it in the course of the year, but information obtained from the medical men in the district, served to indicate that the disease was of a somewhat mild type ; it is therefore only reasonable to infer that the number of cases was not under 1,500. Children under three years of age are specially susceptible of attack, and contribute the largest number of fatal cases. Unfortunately, it is still considered by the public as a children's disease which is practically unavoidable, and its spread in an infected household is not unfrequently encouraged, so that all the susceptible children may face what is considered inevitable at the earliest possible moment, and at a time when their doing so will lead to the least amount of inconvenience.

There is no doubt that the elementary schools exert a great influence in the spread of the disease, and for this and other reasons there is a tendency being shown among Education authorities and their advisers to raise the lower limit of school age, many advocating that no children under seven years be allowed to attend school. It is becoming more and more admitted by Educational Authorities and those employed by them that, from an educational standpoint, attendance at school of children under five or six years of age does not result in much benefit to the children under the conditions now obtaining at those schools. When the risk attendant upon the exposure of so many children to so many possibilities of contracting one or more of the many infectious, or contagious diseases common to infancy and early childhood is placed in the balance with the educational advantages derived from attendance at school at an early age, it is more than doubtful whether the latter are a sufficient justification for the increased risks to life and health which school attendance entails.

In the course of the year now under consideration, it was thought advisable to close only one school on account of the prevalence of measles amongst the scholars. The fact that this school derived its scholars from Blaenrhondda, Fernhill, and Caroline Street, which together constitute a hamlet isolated to some extent from the rest of the district, had considerable weight in the consideration which led to the decision to close the school.

The closure seemed to have on this occasion a decided influence in the prevention of the further spread of the disease.

Statistics bearing upon this disease will be found in Tables 14, 15, 16, 17 and IV.

SCARLET FEVER.

	1904.	Average of 5 years. 1899-1903.
Number of Cases	448	1089
Number of Deaths	20	30
Death-rate per 1,000, Rhondda ...	·16	·26
,, ,, 76 Large Towns...	·12	
,, ,, England and Wales	·11	·12

The diminished prevalence of Scarlet Fever which had been a feature in the history of this disease in the course of the years 1902 and 1903 was more than maintained during the year now under notice. The total number of cases notified amounted to 448 which is a number 641 under the average for the five previous years.

The incidence of the disease—3·6 per 1,000 of the population—is only one-half of that belonging to the previous year.

The deaths numbered 20, a death-rate of ·16 per 1,000 and a fatality rate (number of deaths for every 1,000 cases) of 4·4 per cent. being thus occasioned (Tables 15 and 20).

The distribution of the disease throughout the district was fairly uniform with the exception of Ward 10, in which 100 cases occurred throughout the year, the Wards contributing the next largest numbers being Wards 5 and 6, in each of which 68 cases occurred. Ward 3 with 18 cases was the least implicated.

The periodical and systematic reports made by the Inspectors concerning the houses at which cases had occurred indicate that the attacked houses contained more than the average number of inmates; the average number of persons persons domiciled in each attacked house being 6·8, whereas the average ascertained to have been present at the time of the last census was 5·92 (Table 18).

Out of the total notified, 114 or 25 per cent. were secondary cases ; this proportion is slightly greater than that pertaining to the two previous years (Tables 22 and 24).

At the end of the year under review there were 30 cases in 26 houses as compared with 68 cases in 55 houses at the corresponding time of the previous year (Table 21).

No very marked feature is shown by an analysis of the seasonal incidence of the disease, the three worse months having been January, February and May, and the months on which the disease was least prevalent were August to December inclusive (Table 22).

Owing to the want of accommodation at the Fever Hospital all the cases were of necessity treated at home. In the vast majority of instances it is useless to attempt under such circumstances the isolation in any particular room or rooms, of a patient suffering from Scarlet Fever for the period of time during which he or she may be said to be a source of danger to other people.

One epidemic which came under observation in ward 10 during the month of May, was of an exceedingly mild character, being in some casas only recognized from their from their association with other cases of a less equivocal nature.

For the statistics bearing upon the circumstances relating to Scarlet Fever in the district during the year 1904, see Tables 14 and 15, and Tables 18 to 27 inclusive.

WHOOPING COUGH.

		1904.	Average of 5 years. 1899-1903
Number of Deaths	... ...	53	50
Death-rate per 1,000	Rhondda ...	·43	·44
,, ,,	76 Large Towns ...	·40	
,, ,,	England and Wales	·34	·30

The year 1904 presents no unusual features relating to the history of this disease in the district.

The number of deaths totaled 53, as compared with 52 during the previous year, and an average of 50 for the five previous years.

District Ward 8 with a total number of deaths of 18, and a death-rate of 1·1 per 1,000 was the most seriously affected locality throughout the district. (Table 16.)

The mortality from this disease alone was ·43 per 1,000 of the population living, but this rate has been exceeded five times during the last ten years. (Table 15).

No fewer than 25 out of the total of 53, or 48 per cent., were under one year of age, and none of the fatal cases were over five years of age.

DIPHTHERIA.

	1904.	Average of 5 years. 1899-1903.
Number of Cases	214	1023
Number of Deaths	32	114
Death-rate per 1,000, Rhondda ...	·26	1·00
,, ,, 76 Large Towns	·19	
,, ,, England and Wales	·17	·25

Nothing affords one greater satisfaction in the sanitary history of the Rhondda during recent years than the steady and progressive diminution in the prevalence of this disease which is so noticeable. Thus the total number of cases of Diphtheria notified throughout the year 1904 amounted to only 214, as compared with an average of 1,023 cases for the five preceding years.

This annual total is the lowest recorded since 1896, when only 79 cases were notified (Table 34).

The death-rate for 1904 is also the lowest for a still longer number of years, for since 1892 the mortality from this disease has not been below ·30 per 1,000, whereas in the year now under review the death-rate stands at ·26 per 1,000 (Table 15). While the country as a whole has also been less afflicted with Diphtheria, the improvement which has taken place in Rhondda has been very much greater, although the rate of mortality due to this disease is even now higher by ·07 per 1,000 than the rate pertaining to the 76 Large Towns throughout England and Wales.

Although the incidence of the disease is very much less than formerly, the particular type which has prevailed during the year seems to have possessed more virulent characters for the 214 cases notified have been attended by 32 deaths equivalent to a fatality rate of 14·9 per cent. of cases.

Since the introduction of antitoxin as a general method of treatment, the fatality rate has not exceeded 12·8 per cent. until the year 1904 ; but in the pre-antitoxin days the results were very much less favourable (Table 34).

Of children under five, those between four and five years of age appear to be the most susceptible, for 25 of the total notified were of that age (Table 30) ; on the other hand the greatest number of deaths occurred among the children aged three to four years, of whom eight died, a fatality of 61·5 per cent. resulting (Table 33).

The percentage of secondary cases has been steadily diminishing since 1898, when a record was first kept, as shown in the following table.

Year.	Total Cases.	Primary Cases.	Proportion of Secondary Cases to Total.
1898	883	629	28·7 per cent.
1899	1804	1288	28 6 ,,
1900	1102	855	22·4 ,,
1901	1128	905	19·7 ,,
1902	757	624	16·2 ,,
1903	327	286	12·5 ,,
1904	214	196	8·4 ,,

No novel method as a preventive measure was adopted in dealing with the disease, but the measures previously practised were perseveringly carried out. A fairly large proportion of the patients was removed to the Fever Hospital, 87 or 40·6 per cent. having being thus dealt with. One of pavilions was constantly occupied by Diphtheria patients until November, in which month it became necessary, on account of the typhoid epidemic at Ystrad and Trealaw, to utilize all the available beds for the accommodation of cases of that disease. Many doubtful cases were bacteriologically examined for the presence of the diphtheria bacillus, and children in an infectious state, who might otherwise have been allowed to roam about, or to attend school, were thus brought under control until such time as they were considered to have ceased to be a source of danger to others. The bacteriological examinations were made at the Glamorgan County Laboratory by Dr. H. A. Schölberg, under the superintendence of Dr. William Williams, the County Medical Officer.

An examination of the seasonal incidence of the disease draws attention to the fact that the month of August with practically the lowest number of cases notified was also the period during which all the Elementary Schools were closed for summer holidays. (Table 35.)

As regards the local distribution of the disease, Ward 6 with 70 cases was the most severely implicated and the disease was practically confined to Trealaw or the portion of this Ward which is on the east side of the valley. (Table 35.)

For other facts bearing upon this disease refer to Tables 29, 31, and 32 in the appendix.

TYPHOID FEVER.

	1904.	Average of 5 years. 1899-1903.
Number of Cases	480	247
Number of Deaths	42	39
Death-rate per 1,000 Rhondda ...	·34	·34
,, ,, ,, 76 Large Towns...	·10	
,, ,, ,, England & Wales	·09	·15

The end of the year 1904 unfortunately witnessed the commencement of the most serious epidemic of typhoid fever known in the history of the district since the adoption of the Infectious Disease (Notification) Act 1890, in the year 1894. Previous to the month of November typhoid fever had not been exceptionally prevalent in the district, the nearest approach to that state having been reached in the month of June when 22 cases were notified, 12 of them occurring in the portion of Ward 8, known as Cymmer. A detailed investigation of the circumstances connected with this small outbreak at Cymmer led to the conclusion that certain springs from which the infected houses derived their supply of water had served to convey to the consumers the essential cause of the disease.

The Health Committee in consequence of this conclusion took steps to secure for these houses of water which was free from many of the objections pertaining to the suspected supply, and in the course of the year the Pontypridd Water Company, in whose district Cymmer is situated, furnished the implicated area with water from their water-works at Mardy.

Up to the 8th of November, notifications of 110 cases of Typhoid Fever had been received throughout the year and with the exception of the instance above referred to none of the cases arose under such circumstances that any special comment is needed. From that date, however, up to the end of December, 370 cases of this disease were reported. All except 10 of this number were considered, after an investigation into each case, to be due to a common cause, and occurred in portions of Ystrad and Trealaw, which together form about one-sixteenth of the whole district in point of population.

As the epidemic was not at an end at the termination of the year, and as a detailed account of it will form the subject of a special report which will be issued shortly, I here but briefly indicate the steps which were taken to check the spread of the epidemic, and to lessen the sufferings of those struck down by the disease.

All the available beds at the hospital were rapidly filled, and, as soon as the diphtheria patients could be discharged without undue risk, the diphtheria pavilion was emptied, cleaned, and disinfected in readiness for the reception of typhoid cases. The old hospital was treated in a like manner.

The hospital staff was augmented to meet the increased need, a medical man was engaged to attend upon the hospital patients, and a temporary sanitary inspector was procured.

Several nurses were given prescribed areas, and working in conjunction with the medical practitioners and sanitary inspectors, visited and nursed at their own homes those patients who were most in need of their attention, and who could not be removed to the hospital owing to want of sufficient accommodation.

Within a few days of the commencement of the epidemic, printed bills were distributed from house to house in the implicated area, the message conveyed thereby being to the effect, that no one should drink unboiled water or milk during the prevalence of typhoid fever.

The usual steps pertaining to inspection, disinfection, etc., were unremittingly carried out by Inspectors Thomas and James Williams, in whose districts the implicated area lies. For a period during the height of the epidemic, it was necessary to supplement their exertions by those of some of the other district inspectors, and valuable assistance was rendered by temporary inspector Gwilym Griffiths.

Elaborate preparations to disinfect the water mains and service pipes were made and carried into effect by the combined efforts of the Gas and Water, Surveyor's, and Health Departments.

A survey of the whole year, no distinction being made between the cases belonging to the epidemic and those cases which may be termed the non-epidemic cases, shows that a total number of 477 notifications of typhoid fever and 3 notifications of continued fever were received in the course of 1904. This total exceeds the average number for the last five years by 233 cases.

The number of deaths amounted to 42, equivalent to a fatality of 8·7 per cent and to a mortality of ·34 per 1,000 of the population. Notwithstanding the large number of cases notified, the mortality resulting from typhoid fever has been exceeded four times during the last ten years, ·50 in 1899 being the highest recorded during that period.

The incidence of the disease was 3·9 in every 1,000, or 1 in 254 of the population living.

Owing to the want of accommodation at the hospital only 144 cases or 30 per cent. were removed to that institution.

Of those removed, 19 died, equivalent to 13·2 per cent., and of those not removed 28 died, a fatality of 6·8 per cent. being thus occasioned.

Tables with figures relating to Typhoid Fever will be found in the appendix, Nos 15, 36, 37, 38, 39, 40, 41 and 42.

DIARRHŒA.

	1904.	Average of 5 years. 1899-1903.
Number of Deaths	211	166
Death-rate per 1,000 Rhondda ...	1·72	1.46
,, ,, 76 Large Towns ...	1·20	
,, ,, England and Wales	·86	·69

In marked contrast to the history of the years 1902 and 1903, the extent to which diarrhœa prevailed in the district during the year 1904 was very considerable, and it caused throughout that year the large total of 211 deaths. As is usual, the summer months, especially July, August, and September, contributed the vast majority of the fatalities, for during the ten weeks intervening between the 9th of July and the 17th of September, the death roll from this disease reached 165, such was the influence of the meteorological conditions upon its virulence.

It has been long held that a close relation exists between the temperature of the earth at a depth of a few feet and the prevalence of the so called Summer Diarrhœa, and an examination of the record for the same period of the earth temperature at a depth of 4 feet, lends strong support to this view, for on the 16th of July, the earth 4-foot thermometer registered 56 degrees Fahrenheit, and from that date the temperature gradually rose to a maximum of 59 degrees throughout the first fortnight in August before steadily and gradually falling to 55 degrees on the 16th of September. A reference to Table 43 enables one to see at a glance that the period of greatest fatality from Diarrhœa was exactly co-terminous with the time during which the earth temperature at a depth of four feet stood at 56 degrees or more.

No like inferences can be drawn from the year's records as to any possible relationship between the rainfall and the prevalence of this disease. During the same period of ten weeks the total rainfall in one portion of the district amounted to 13·5 inches of which about one half fell in the month of August, in the course of the whole of which the disease was very fatal.

The mortality which was the direct result of diarrhœa in the district during the year 1904 was equivalent to a rate of 1·72 per 1,000 of the living population, and was thus ·26 per 1,000 above the average for the five preceeding years and ·52 per 1,000 above that for the 76 Large Towns of England and Wales.

Doubtless many factors contribute towards this high death-rate from diarrhœa, in the first place as already mentioned elsewhere a very large proportion of the married women in the Rhondda are under 21 years of age, and such are of necessity possessed of less experience and less knowledge of the requirements of their children. In the second place the very high birth-rate which has been characteristic of the district for some years must influence unfavourably the treatment meted out to any particular member of a family. In the third place the conditions which exist in the neighbourhood of the large majority of dwelling-houses are such that food and drink especially milk can very easily become contaminated by the dust of which there is a superabundance during the summer months.

No measures directed specially towards the prevention of diarrhœa have been carried out in the district with the exception of the distribution, through the medium of Mr. George Williams, the Registrar of Births and Deaths of a number of hints drawn up in both English and Welsh for the guidance of mothers in the feeding and general management of their babies. This distribution has now been practised for three years, and advantage has been taken of the fact that the district forms the whole of one and portions of two other sub-registration districts and for purposes of comparison the distribution of the hints has been confined to one sub-registration district, as indicated in the following table :—

Sub-District.	No. of Births.	No. of Deaths.	Death-Rate per 1000 Births
1901. No Feeding Cards distributed.			
Ystradyfodwg ...	3599	267	74
Rest of District ...	987	57	58
1902. Feeding Cards in Ystradyfodwg only.			
Ystradyfodwg ...	3880	85	22
Rest of District ...	1057	23	22
1903. Feeding Cards in Ystradyfodwg only.			
Ystradyfodwg ...	3789	88	23
Rest of District ...	1108	21	19
1904. Feeding Cards in Ystradyfodwg only.			
Ystradyfodwg ...	3819	178	46
Rest of District ...	1041	33	31

A consideration of the above table justifies one in drawing the conclusion that for the whole of the three years the influence has been a beneficial one if we may take for granted that the figures relating to 1901 are a true expression of the normal rates in the respective areas. In no instance however, has the infantile mortality from diarrhœa been actually less in the district in which the hints have been circulated than that in the other districts combined, and it is discouraging to find that the year 1904 showed the greatest disparity since the distribution of the hints was begun.

It would seem that it is not sufficient for the mothers to receive a number of printed instructions however simple ; but it is apparently necessary not only to explain the nature of the hints, but also to show how the recommendations can be carried out. This useful instruction could best be carried out by one or more women-inspectors who, possessed of the necessary knowledge and literature, could point out to the mothers the pitfalls and the indiscretions which are such a fruitful source of diarrhœa in infants.

The liability to this disease is very much less after the termination of the first year of life, and during the year 1904 no fewer than 173 out of the total of 211 deaths were under one year of age.

The district ward distribution makes manifest that some localities were much more affected than others, ward 2 with 36 and ward 10 with 34 fatal cases being the most implicated, whereas ward 7 with nine, and ward 1 with 11 cases suffered least, (Tables 43 and IV).

PUERPERAL FEVER.

	1904.	Average of 5 years. 1899-1903.
Number of Cases	22	26
Number of Deaths	9	16
Death-rate per 1,000 Rhondda ...	·07	·13

The number of cases of this disease notified during the year amounted to 22, of which nine died, equivalent to a death-rate of ·07 per 1,000. This death-rate from Puerperal Fever is the lowest which has occurred in Rhondda since the year 1898 (Tables 44 and 45).

It is yet too soon to expect any appreciable improvement as a direct result of the administration of the Midwives' Act, 1902, which came into force on April 1st, 1903.

After the 1st of April, 1905, any woman may on her requesting it, be certified under the Act, if she already holds an approved qualification in Midwifery, or produces evidence of having been in *bona-fide* practice prior to the 1st of August, 1901. It is further stipulated in the Act, that no woman shall habitually practise after the 1st of April, 1910, unless certified under this Act.

One ultimate result of the Act will be to improve the class of women who undertake the responsible duties of midwives, and the Act will thus serve to minimise the risk from the point of view of mother and child.

The administration of the Act in the Rhondda has been undertaken by the Glamorgan County Council who are the supervising authority.

PHTHISIS.

	1904.	Average of 5 years. 1899-1903.
Number of Deaths	115 ...	94
Death-rate per 1,000 Rhondda... ...	·94 ...	·82

In the course of the year 1904, 115 deaths were registered. There was thus occasioned a death-rate of ·94 per 1,000 which compares rather unfavourably with the ·87 per 1,000 which formed the average rate for the last decennium.

It is a very encouraging fact that the death-rate from this disease has been steadily declining for many years, the death rate for the last 10 years being ·20 below the annual average for the preceding decennium.

As compared with the rest of the country, the Rhondda occupies a favourable position, for the average death-rate from Phthisis for England and Wales for the last ten years reached 1·3 per 1,000, and the 76 Large Towns 1·4 per 1,000.

The victims of the disease in the district were drawn from a variety of occupations, but colliers with a total of 20 contributed the largest number, school teachers with four deaths, and dressmakers with three deaths, occupying the second and third positions respectively (Table 46).

All the district Wards contributed fairly equally to the total, Ward 3 with a total of 18, and Ward 1 with a total of six deaths, furnishing the largest and smallest respectively (Table IV).

INFLUENZA.

	1904
Number of Deaths	14
Death-rate per 1,000 Rhondda	·11

Although Influenza was somewhat prevalent during a portion of the year 1904, there were only 14 deaths recorded as due to this disease.

The large majority were between 25 and 65 years of age, and all the district wards with the exception of Nos. 1 and 4 contributed to the total.

COLLIERY FATALITIES.

Number: 56,—equivalent to a death-rate of ·45 per 1,000.

The death-rate resulting from the minor fatalities which occur in connection with the various collieries in the district maintains a very constant level. The extreme number of deaths since 1897 vary from the 42 of 1898 to the 63 of 1901. Falls from the roof are the most common cause of death.

INQUESTS.

Total: 185,—equivalent to a death-rate of 1·1 per 1,000

If the accidents associated with the collieries be excluded, the number falls to 79, or ·64 per thousand. (Table 48).

THE FEVER HOSPITAL.

Accommodation:	New Hospital ...	32 beds
	Old Hospital ...	4 beds

The year 1904 has witnessed the establishment of a record in the number of cases treated at the hospital, the total amounting to 231 as compared with 222 in the year 1903.

The following table shows the number of cases, number of deaths, and the fatality (mortality per cent.) in respect of each disease under treatment in the hospital throughout the year.

	No. of Cases.	No. of Deaths.	Fatality (per cent.)
Diphtheria ...	87	6	6·9
Typhoid ...	144	19	13·2
Total ...	231	25	10·8

The following table furnishes particulars as to the district wards whence the patients were drawn :—

	Diphtheria.	Typhoid.
Ward 1 contributed ...	3	20
„ 2 „ ...	1	9
„ 3 „ ...	2	—
„ 4 „ ...	18	50
„ 5 „ ...	7	4
„ 6 „ ...	38	24
„ 7 „ ...	9	7
„ 8 „ ...	5	22
„ 9 „ ...	2	6
„ 10 „ ...	2	2
Total ...	87	144

The available accommodation at the Hospital was strained to the utmost towards the end of the year on account of the occcurrence of a severe epidemic of typhoid fever at Ystrad and Trealaw (in wards 4 and 6).

Throughout the duration of the epidemic, the hospital staff had to be increased and all the members were compelled to work at high pressure and I must take this opportunity of expressing the extent of my indebtedness to Miss Smith and Staff for the devoted character of their services.

The number of cases in the hospital at one time naturally bore some relation to the prevalence in the district of the diseases isolated and treated at the hospital. With regard to diphtheria the number admitted during each quarter was a fairly constant one ; on the other hand in the case of typhoid, 103 cases were admitted during the latter half as compared with 41 cases in the first half of the year.

In the month of November, all the available space at the hospital was taken up by cases of typhoid fever, of which there were between 50 and 60 under treatment for several weeks.

The average time spent in the hospital by recovered cases of typhoid fever was 57 days, and of diphtheria 39 days. In the case of those which terminated fatally the average numbers were 16 and 9 days for the respective diseases.

The total expenditure for the year amounted to £1,869 0s 11d apportioned as follows :—

	£	s.	d.
Salaries and Wages	588	14	7
Bread	51	12	7
Eggs	3	18	5
Fish and Vegetables	80	0	2
Milk...	187	0	6
Meat	173	0	1
Groceries	159	14	11
Gas (3 Quarters)...	98	4	8
Coal...	144	10	3
Water (3 Quarters)	16	10	0
Gas and Water Repairs	18	16	2
Stationery, Printing, Repairs, &c.	16	17	6
Stimulants (Brandy, &c.)	35	5	3
Horsehire, Horsefeed, Saddlery, &c.	20	16	10
Mackintosh, Blankets, Bedding, &c.	44	18	5
Drugs, Instruments, &c.	96	19	10
Boiler Insurance	1	13	0
Boiler Repairs, &c.	11	14	4
Soap, &c.	41	6	4
Crockery and Drapery	31	4	0
Ironmongery	3	7	7
Furniture	5	12	6
Ground Appliances	26	10	9
Recreation Requisites	10	12	3
	£1869	0	11

The inclusive cost of maintenance amounted to £1 1s 9d per week, per patient.

It will readily be admitted that the hospital since its opening in March, 1902, has proved a great public benefit, and the Council have now realized that its utility will be further extended by the erection of a third pavilion, so that at least three diseases may be isolated at one and the same time. The beds available have up to the present been in such demand on the part of Typhoid Fever and Diphtheria patients that it has been found impossible hitherto to admit any cases of Scarlet Fever.

The addition of another pavilion will meet this requirement but it must be recognised that it will be impossible even after this addition, to isolate more than a very small proportion of the Scarlet Fever cases notified throughout the district. We can only hope to so deal with cases placed in exceptionally unfavourable circumstances, or cases which on account of their environment and associations may appear likely to propagate the disease.

SCAVENGING AND REFUSE DISPOSAL.

In the course of the year 1904, there has been no change in the system of the disposal of refuse in the district. There may be said to be 200 loads of refuse to be dealt with every day (except Sunday), in the disposal of which two methods are practised, but to a very unequal extent. About 14 or 15 loads are burnt in a destructor, while the remainder of the refuse is conveyed to a dozen tips scattered throughout the district.

All the work is done by contract, the district being divided into 28 sections, the divisions as far as possible being made to coincide with the more densely populated areas into which the district is naturally partitioned. This number is considerably higher than those into which the district was divided up to the year 1903; on the other hand it has been necessary to curtail the number of refuse tips owing to the difficulty experienced in securing relatively suitable sites. During the scavenging year 1904-1905, there were 15 such tips in use, as compared with 17 during the previous year.

Altered circumstances demanded the abandonment of several of the tips previously in use, but the Council were fortunate enough to procure more than one site in the neighbourhood of large centres of population, such as the tip on Taff Vale land at the upper end of Pentre, the Recreation Ground at Gelli, and the deep ravine between Penygraig and Tonypandy.

One of the results of these acquisitions has been to reduce the total amount paid to contractors for haulage to £5,132, the figures pertaining to 1903-4 and 1902-3 having amounted to £5,647 and £6,165 respectively. The cost of scavenging each house in the district amounted to 4s. 11d., 5s. 6d. and 6s. 0d., in the same years in the order already given.

Owing to their situations the refuse tips continue to be a source of nuisance, and the subject of complaints from the inmates of the houses in their immediate neighbourhood.

This is not a matter for surprise when it is realized that the large majority of our tips are within 100 yards of large groups of houses, for in spite of much attention and the application to these tips of large quantities of lime, it is impossible to deprive the large masses of decomposing organic matter, of which these tips are largely formed, of highly offensive effluvia which are the chief source of complaint. Moreover, these refuse tips are a source of risk to the public health in other and less appreciated ways, in-as-much-as dangerous particulate matter in the form of micro-organisms is apt to be conveyed by various means from these depôts to the dwelling houses in their neighbourhood, with a probable result that food and drink become contaminated.

The Council are still undecided as to what system of refuse disposal to adopt for the whole district. It may be said that, excluding the method now in vogue as having become unsuitable and a source of danger to the public health, that there are three schemes which deserve attention on the part of the Council, each one presenting advantages and disadvantages as compared with the other two. The three are,—

(1) Destruction by fire, by means of refuse destructors.

(2) Removal by means of inclines to the hill tops such as is commonly practised by the Colliery Companies in disposing of the rubbish from their pits.

(3) Removal by rail to some waste land altogether outside the district.

If for the present we exclude from consideration the important question of cost as a matter to be settled after further inquiry, the first scheme is undoubtedly the best from the point of view of public health, for in this system all refuse of whatever kind is within a few hours of its collection rendered perfectly innocuous, and ceases to be a danger and a source of nuisance. If the cost of destruction can be reduced to some extent by a profitable utilization of the heat derivable from the destruction of the refuse, or of the residue in the form of clinker etc., or both, it seems probable that this system will prove not only the best from the point of view of the sanitarian, but will also compare favourably with the other schemes from the point of view of the economist.

In this connection it is well to point out that the scheme which draws least money directly from the district fund is not necessarily the cheapest scheme in reality, for a cheap but otherwise unsuitable scheme may entail a considerable expense and suffering to many individual ratepayers, as it may be the insidious and insensible cause of inability, from indisposition or more serious illness, to do any work or that amount of work which should be the outcome of a healthy man's efforts.

As regards the two other schemes either would be infinitely superior to that now in vogue, that involving the removal of the refuse from the district being preferable from the point of view of the district whence the refuse is removed.

The small plant for refuse destruction, in the form of a Mason's Gasifier, which has been in use in the district since 1901, has continued to be so used throughout the year 1904. The two cells of which the plant is constituted are capable of burning about 16 tons of refuse per diem, the destruction being continued throughout the 24 hours with the exception of Sunday. The total results achieved during the year 1904 have not materially differed from those of the previous years, the cost of destruction amounting to about 1s. 9d. per ton. No steps have been taken towards endeavouring to further reduce the cost of destruction per ton, such as would be possible by adding to the present plant two more cells. It is estimated that such an addition would serve to lower the cost to the extent of 6d. per ton, because we would be thereby enabled to burn twice as much refuse without adding a proportionate number of men to the staff. Circumstances do not at present favour the profitable use of the waste heat or of the residue.

SEWERAGE.

The main sewer which serves to conduct the sewage of the district is the joint property of the Pontypridd and Rhondda Urban District Councils, and after running a course of 17½ miles discharges into the sea between Cardiff and Newport.

During the year the Health Committee of the Council has been actively engaged in lessening the number of houses in the district which are unconnected to the main sewer, the total thus dealt with amounting to 257 houses. During the last seven years, very considerable progress has been made with this work, as may be realized by referring to the figures below, which represent the number of houses remaining unconnected in the respective Inspectors' districts at the end of 1904, and the total number of such houses in the whole district at the end of 1897 :—

District No.	1	157
„	2	51
„	3	71
„	4	105
„	5	38
„	6	82
Whole District		504
Number at the end of 1897		4,290.

Very important work was done in the course of the year in this direction, and among the larger groups of houses connected were, 84 at Blaencwm, and 66 at Fernhill. A further group of 139 houses situated at Cymmer has been rendered more sanitary by the conversion of the ash-closets, with which they were previously provided, into water closets and thus a fruitful source of nuisance and complaint has been removed ; the slop sewage drains of these houses were already connected to the sewerage system of the Council.

There still remain two large collections of houses whose drainage needs attention ; the one situated at Appletree, Dinas, consists of about 50 houses, and owing to the nearest sewer being too high, the drainage of this group offers some difficulties, and probably one of three ways will have to be resorted to before the difficulties can be overcome ; in the first place bacterial treatment of the sewage may be adopted ; in the second place a subsidiary sewer may be laid of sufficient length to allow the sewage to flow by gravitation to some point on the main sewer lower down the valley; in the third place a small pumping plant may be erected for the purpose of raising the sewage to a point above the level of the existing sewer.

The second group referred to consists of 50 houses at Clydach. At present, these houses are provided with ash-middens which are emptied twice a week by the Council's scavenger. Owing to the great cost of laying a sewer which could be made to serve for the drainage of this collection of houses, the Health Committee has asked the Company which owns this property to provide a pail closet for each house. The inter-communications between the Council and Company were unfortunately interrupted by an explosion in one of the Company's pits. At the time of writing however, communications have been renewed.

COMMON LODGING-HOUSES.

During the year 1904 several applications for the registration as common lodging-houses of certain houses were received, but unfortunately, the premises in respect of which the applications were made, were either unsuitable for the purpose, or the sentimental objection to their use as common lodging-houses was such as to induce the owners to refuse to give their consent. Such refusal was especially regrettable in the case of certain premises at Ystrad, because these were commodious, well-situated, and easily adaptable for use as a common lodging-house.

At the time of writing there has been a renewal of this application, and it is to be hoped that the result will be more fortunate on this occasion, as premises which are available and which lend themselves to the accommodation of a number of casual lodgers, are an important need in the district.

REPORTS DURING THE YEAR.

In addition to the ordinary statistical matter, the following subjects were dealt with in the reports placed before the Council during the year :—

Employment of Children Act (3).
The capabilities as a refuse destructor of the installation at Ystrad-Rhondda.
Houses unconnected to Sewer in No. 2 District.
Houses unconnected to Sewer in No. 6 District.
Small Coal at Ferndale.
Outbreak of Typhoid Fever at Trebanog.
The Sanitary condition of Trebanog.
Outbreak of Typhoid Fever at Ystrad (3).
Outbreak of Typhoid Fever at Trealaw (3).
Outbreak of Measles at Blaenrhondda.

ADOPTIVE ACTS.

The Infectious Disease (Notification) Act, 1889 ; The Infectious Disease (Prevention) Act, 1890, and the Public Health Acts (Amendment) Act, 1890, Part III., were adopted by the Rhondda Council from January 1st, 1894.

POLICE COURT PROCEEDINGS.

The following is a summary of the details of the cases in 1904 :—

Allowing new house to be occupied without certificate as to fitness, £1 and 13s. costs.

Occupying new house without certificate as to fitness £1 and 8s. costs.

Exposure while in an infectious state, £1 and 7s. 6d. costs.

Failing to abate nuisances £2 and costs and 7 days order.

” ” Costs only, the work being done.

” ” ” ” ”

” ” ” ” ”

” ” ” and 21 days order.

” ” (9 houses) 10s. each house including costs, and 14 days order.

Keeping an unregistered Common Lodging-house, £1 and 8s. costs.

Occupying a shed which was unfit for human habitation, order to move in three days, and daily penalty for continuation of offence.

Renting a stable loft for human habitation £2 and 7s. costs, and order to move in 7 days.

Slaughtering on unregistered and unlicensed premises £1 and 16s. 6d. costs, and a daily penalty of 10s. for continuation of offence.

Throwing refuse into river, 5s. and 7s. costs.

” ” £1 and 8s. costs.

DISINFECTION.

There has been no departure in the methods of disinfection practised in the district in the course of 1904, as compared with recent years. All clothing which is believed to be infected. and capable of being so disinfected without injury, is subjected to the action of steam applied by means of an "Equifex" steam disinfector, which is fixed up at the hospital. Such clothing is conveyed from all infected houses at the termination of the illness of the stricken inmate or inmates, a special zinc-lined van being used for the purpose. After disinfection in the way already indicated, the clothing and other articles are returned to the owners in another and uninfected van.

In the meantime, the portion of the house occupied by the patient is subjected by the district inspector to the action of formaldehyde gas, generated from formalin tablets by means of special lamps.

Towards the end of the year, an extraordinary amount of disinfection was required, in consequence of the occurrence of the epidemic of typhoid fever at Ystrad and Trealaw, but the loss of time entailed in the performance of the journeys to and from the implicated area, was reduced to a minimum on account of the close proximity of the district involved to the disinfecting station.

The Disinfection was faithfully done by James Alesbury, assisted when occasion required by Richard Hern.

WATER SUPPLY.

With the exception of the new supplies to Blaencwm and Gilfach Goch, there has been no important alteration in the water supply of the district during the course of the year 1904. The supplies continue to be many and diversified in respect of their sources, storage, treatment, and distribution. The nature of the source is very similar in nearly all cases, for the water is derived from uncultivated uplands which skirt the 2 valleys on all sides.

From the point of view of the water supply, the district as a whole may be divided into 2 portions. One portion comprises the whole of wards 1 to 5 together with portions of wards 6 and 7; in other words it extends from the upper end of the larger valley to a boundary line dividing into two parts Penygraig on the west side and Trealaw on the other side of the river. This portion constitutes the water area of the Council. The remainder of the district, including the whole of the lesser valley as well as the larger valley below the lower boundary of the Council's area, is in the main supplied by the Pontypridd Water Company. Within each of these two areas there are smaller areas possessing independent supplies, the more extensive being situated in the district supplied by the Council.

The most important of these are the following:—

Blaenrhondda, comprising 103 dwelling houses is supplied with water derived from a disused level.

Caroline Street, with 51 houses (only 39 of which are occupied), is supplied from the same source as Blaenrhondda.

Fernhill also is supplied with water from a level, the surface water upon which it was previously dependent having proved insufficient.

Cwmparc, with over 500 houses, is supplied with surface water from a gathering area, situated at the foot of Graig 'Fawr, of about 300 acres in extent, and distant at least a mile from the village. The water is subjected to sand filtration before it is distributed. The Ocean Colliery Company, which owns about 200 of the houses, is responsible for the collection, filtration, and distribution of the water.

Close on 300 houses situated in Llwynypia and owned by the Glamorgan Coal Company are supplied with water by that Company. The gathering ground is not above 250 yards distant from inhabited houses and no filtration of an efficient character is practised.

About 800 houses in Clydach Vale are supplied by the Cambrian Colliery Company with water derived partly from the uplands to the west of Clydach Vale and partly, at least in summer, from the Clydach Brook, from which water is directly pumped into the mains.

In addition some 200 houses in the Council's water area derive their water for domestic purposes from wells, springs, or streams.

In the course of the year Blaencwm, comprising 80 houses, has been supplied by the Council with water derived from the reservoir at Treherbert. The water is filtered before distribution and it has been found necessary, owing to the high level of a certain portion of the hamlet, to arrange for the pumping of the water required by this section It has been decided to do so by means of a ram which is now being fixed. During recent years, Blaencwm has been the most typhoid-infected area in the district, but it is significant that since the new water supply has been provided, the only cases notified have occurred in that portion which, owing to the delay consequent upon the necessity for pumping, still procures its water from the old sources.

That portion of Gilfach Goch which lies within our district has at last been provided with a supply of water by arrangement with the Llantrisant Rural District Council. A tap has been placed in every house by the Glamorgan Coal Company, which owns the houses. Owing to the plumbo-solvent property of the water supplied, it has been found necessary to protect the consumers by the provision of iron pipes lined with block-tin. The water was first laid on soon after the termination of the year, the exact date being January 20th, 1905.

In the course of the year there was not such scarcity of water as to need placing on short supply the houses supplied by the Council, although it was necessary to supplement for

30 days in the year the sources usually depended upon by utilizing the water derivable from some unworked coal levels.

The rainfall during the year was above the average, the total amounting to 80 inches at Treherbert. The driest month was June with a fall of 2·86 inches, and with 20 days on which no measureable quantity fell. Both May and July were however fairly wet ones with a fall of over 5 inches each. The year therefore was not such as to severely test the adequacy of our supply. Nevertheless it was considered necessary by Mr. Octavius Thomas, your Water Engineer, as already mentioned, to draw upon unusual sources in order to safeguard the district from the evils and inconvenience of a short supply. The appointment of Mr. J. E. Hughes as resident engineer, is a welcome indication that the Council are appreciative of the danger the district is exposed to by the supply. From various schemes submitted by Mr. Hughes, it was decided to seek Parliamentary powers, during the present Session, for extension of time in which to carry out the scheme which involves the ultilization of Llyn Fawr (Large Lake) as a storage reservoir, and the construction of a tunnel through the hill intervening between Rhondda Fawr Valley and the Lake for the dual purpose of allowing the reservoir, when made, to be filled, and of enabling the water, when stored, to flow by gravitation to the existing reservoir and filter beds at Treherbert, at the northern extremity of the larger valley. In the consideration of this scheme it was thought probable that it will meet the increased requirements, consequent upon the growth of the portion of the district to be supplied, for very many years to come. By a wise forethought it is provided that the tunnel in the adopted scheme shall be so constructed as to be available for the conduction of water which it may be found necessary to obtain, at some future time, from the Llia or some other distant gathering ground. It is to be hoped that such water will be obtainable if and when the need for it will arise.

The provision of a larger storage such as is contemplated in the Llyn Fawr scheme does not afford a complete solution of the problem presented by the needs of the whole of the area supplied by the Council. Owing to the rapid growth in the number of houses to be supplied in certain elevated portions of our district, especially Clydach Vale and Trealaw, it has recently been found impossible to furnish the whole of the most distant portions with a constant service, and it has been found necessary, by a well-thought out manipulation of a number of valves placed on the mains, to cut off sections of the area in rotation for about two hours daily, in order to be able to keep the mains sufficiently charged in the portions not so cut off for the time being. The Council have already recognized this difficulty, and have adopted two schemes by means of which it is believed the situation will be satisfactorily met. In the first place it has been decided to lay a new 15-inch main from the waterworks for the necessary distance down the valley; in the second place, the higher portions of Clydach Vale will be supplied from an iron tank of a capacity of 100,000 gallons, a pump driven by a gas engine of twenty indicated horse power being brought into requisition for filling the tank. The contract has been let in each instance, the price in the former case being £9,700 and in the latter £1,400.

The whole of the area supplied by the Council has an acreage of 15,182 acres, with an estimated number of 11,427 houses, equivalent to an estimated population of 67,647 persons at 5·92 persons per house. Notwithstanding the increase which has taken place in the district, the numbers here given are absolutely lower than those contained in my last annual report, the apparent discrepancy being due to a change in our system of enumeration in order to bring into agreement our own system with that of the Registrar-General. In the figures previously given,

" tenements " were counted, the number thus arrived at being in excess of the number of " houses." The large majority of these houses are supplied with water by the Council, the total number thus provided at the end of 1904 amounting to 9,901, with an estimated population of 58,613 persons. In the course of the year 254 new services were laid on, a daily need for about 5,000 additional gallons of water being thereby occasioned at the moderate allowance of 20 gallons per head per day.

It has been calculated by Mr. Octavious Thomas, your Water Engineer, that the average daily consumption per individual amounted to 15·36 gallons for domestic purposes, the additional quantity required for trade purposes not exceed- a gallon per head. This figure exceeds by nearly two gallons the highest amount hitherto reached. The increase is doubtless partly attributable to the large amount of water required for the frequent flushings of water mains and sewers which were practised towards the end of the year on account of the typhoid epidemic at Ystrad and Trealaw. It is reasonable to infer, however, that the greater demand for water may be in part ascribed to the gradual change in the habits of the people, and this view is borne out by the fact that a steady increase in the consumption per head has been noticeable during recent years.

At present the total storage capacity of the Council's reservoirs is only 7,000,000 gallons.

The total aggregate area of the gathering ground available in connection with the adopted scheme has an acreage of 2,221 acres.

In view of the proportion of peat in the 1,271 acres of gathering ground pertaining to the Llyn Fawr scheme, analyses of the water derived from each constituent part are now being made for the purpose of ascertaining whether it is possessed of any disolving action on lead, of which metal practically all the service pipes are made.

The Pontypridd Water Company, possessing an aggregate storage capacity of 200,000,000 gallons, have the power, under several private Acts of Parliament, to supply the remainder of the Rhondda Urban District, comprising the whole of Rhondda Fach and that portion of Rhondda Fawr below the lower boundary of the Council's area. Their main gathering ground is situated to the north of Maerdy, the water being collected into two storage reservoirs at the upper end of the Lesser Valley. The filtration is carried out just below the lower and older of the two reservoirs. Two methods of filtration are in use, one by means of sand beds, and the other by means of the patent filters known as Reeve's, in which the filtering medium is quartz or polarite. Samples of the water before and after filtration have been taken at various times during recent years, distinction being made between the waters subjected to the two methods of filtration. The bacteriological examinations have, on the whole, shown that sand filtration, as carried out at these works, has a greater power than the patent filters to reduce the number of organisms present in the unfiltered water, while the naked eye characters indicate that the sand is much more successful in removing the discolouration which is generally such a marked characteristic of the water supplied by this Company, and which is doubtless mainly due to the peaty nature of a great proportion of the gathering ground. Complaints concerning this discolouration are frequently received, and the objection taken to it in many instances is such that the water presenting it is discarded for other water which, derived as it is often from adjacent surface streams, may possess still more objectionable and dangerous qualities. In addition to the chief gathering ground above alluded to, the Pontypridd Company utilize two other smaller areas, one to the west side of Maerdy, and the other to the east side of Williamstown. In the case of the water from the former no filtration is practised, the water being mainly derived from springs; there was evidence forthcoming in the course of the year that this source was becoming less reliable and showing signs of failing altogether. In the case of the latter, I am informed by Mr. W. Jones, the manager, that it is made use of only as a supplementary supply, the service tank at Williamstown being mainly filled from the works situated above Maerdy.

Another fruitful source of complaints concerning the water supply of this Company is the failure, on the part of the Company, to supply a constant service of water under pressure to the higher portions in their district. The complaints are most commonly heard at Trealaw, Williamstown, and Trebanog, in certain portions of which it appears to be very exceptional for water to be obtainable from the taps throughout the 24 hours.

HOUSE ACCOMMODATION.

There was exceptional activity in the building trade in the district in the course of the year 1904, and throughout that period 594 buildings were passed for occupation.

It is interesting to compare these figures with those pertaining to the last seven years for which the exact figures are available.

During recent years there has been a steady increase in the number of houses passed for occupation.

The number occupied in the year 1900 having been increased fourfold in the year 1904 as shown in the following table :—

In 1898	there were	317	houses	passed for	occupation.
,, 1899	,,	157	,,	,,	,,
,, 1900	,,	148	,,	,,	,,
,, 1901	,,	187	,,	,,	,,
,, 1902	,,	334	,,	,,	,,
,, 1903	,,	483	,,	,,	,,
,, 1904	,,	594	,,	,,	,,

One of the results of this large increase appears to be a diminution in the amount of overcrowding existing in the district, for certain inquires in respect of 1,100 houses which were made in connection with the outbreak of typhoid fever towards the end of the year, indicate that the number of occupants per house throughout the area involved, had fallen to the extent of ·3 person per house since the time of the last census in 1901.

Nevertheless, the demand for houses continues to be unabated, and it appears to be a matter of difficulty to secure reasonable time, an ordinary house rented at from £1 to £1 10s. per month.

Architecturally there is very little variety shown in the construction of the houses, the large majority consisting of five rooms with the usual offices.

On the other hand the number of plans passed during the year under review is considerably under those pertaining to the two previous years, the respective totals for the three years in question being 849 in 1902, 1036 in 1903, and 527 in 1904. In addition there were passed plans of shops, hotel, and 6 chapels and churches (Table 49).

ADMINISTRATION.

With the exception of the replacement of Mr. Evan J. Owen consequent upon his resignation by the appointment of Mr. Evan Evans as Junior Clerk there was no change in the *personnel* of the sanitary staff in the course of the year. The ordinary work of the department has proceeded smoothly, exceptional efforts being required only as a result of the serious typhoid epidemic in the districts of Inspectors J. Towy Thomas and James Williams, whose energies for about 3 months were practically confined to the arduous duties which were the direct result of the outbreak.

Tables 50 and 51 provide a summary of the work done in the course of the year by the staff of Inspectors. Whereas the figures which represent the work done in each district differ considerably from those opposite the same items in previous years, the total amount of work done throughout the year has been maintained at about the same level.

FACTORY AND WORKSHOP ACT, 1901.

Section 132 of the Act reads as follows :—

"The Medical Officer of Health of every District Council shall, in his Annual Report to them, report specifically on the administration of this Act in Workshops and Workplaces, and he shall send a copy of his Annual Report, or so much of it as deals with this subject, to the Secretary of State."

The systematic inspection of workshops and workplaces in the district which was commenced in the year 1903 was completed in the year 1904, the number of visits and re-visits required amounting to 980, Towards the end of the year a special form of table was submitted by the Secretary of State, but before the dissection required by the table can be carried out the modification of our system of record keeping will be necessary. In this report, therefore, the tables inserted in previous reports are reproduced.

Workshops and Workplaces in the Rhondda in Wards.

	1	2	3	4	5	6	7	8	9	10	TOTAL
Boot Makers ...	15	11	12	12	12	16	12	14	7	7	118
Bakers ..	15	20	15	14	17	12	15	22	12	14	156
Blacksmiths	2	—	2	2	2	2	2	4	2	—	18
Barbers ..	5	7	11	6	9	10	11	12	7	12	90
Basket Makers	—	—	—	—	—	1	—	—	—	—	1
Carpenters .	3	5	10	3	5	6	7	7	3	3	52
Fried Fish Shops	6	5	5	8	3	6	5	3	3	12	56
Coachmakers .	1	—	3	—	1	—	1	2	—	1	9
Confectioners ..	—	—	—	—	—	1	—	—	—	—	1
Cycle Repairers	—	1	2	1	—	2	—	2	—	1	9
Dressmakers ..	35	22	12	10	13	20	8	14	21	48	203
Dressmakers & Milliners (comb)	—	1	—	—	—	—	—	3	1	1	6
Glaziers ..	—	—	—	—	—	2	—	2	—	—	4
Jewellers ...	1	2	5	1	1	6	2	3	2	4	27
Milliners ...	7	11	9	5	6	8	7	5	7	8	73
Knitters ..	1	—	—	—	—	—	—	—	—	—	1
Picture Framers	—	3	1	1	2	—	—	1	—	—	8
Printers	1	1	1	—	—	—	—	—	—	—	3
Plumbers ...	—	—	2	1	1	1	1	1	—	—	7
Saddlers ...	2	—	1	—	—	2	2	2	—	1	10
Monumental Masons .	—	2	—	—	—	3	1	1	—	—	7
Sewing Machine Fitters ...	—	—	1	—	—	—	—	—	—	—	1
Sweet Makers...	—	—	—	—	—	1	—	—	—	—	1
Tailors ...	7	11	14	5	5	9	5	8	7	5	75
Tinmen ..	—	—	—	—	1	1	1	1	—	—	4
Quarries ..	—	—	4	4	2	5	—	—	—	—	15
Rhondda ...	101	102	110	73	80	114	80	107	72	117	956

APPENDIX.

Table 1.

Population of the Rhondda Valleys since 1801.

Year.	Houses. In-habited.	Houses. Unin-habit-ed.	Houses. Build-ing.	Persons. Males	Persons. Females	Persons. Total	Per-sons per House
a 1801				265	277	542	
1811				283	293	576	
1821				309	338	647	
1831				277	265	542	
1841				386	362	748	
1851				493	458	951	
1861	561	107	5	1,669	1,366	3,035	5·4
1871	2,710	32	62	9,559	7,355	16,914	6·2
b 1871						23,950	
1881	9,193	340	158	30,877	24,755	55,632	6·0
1891	13,551	146	374	50,174	38,177	88,351	6·5
1901	19,210	368	112	62,315	51,420	113,735	5·92
Mids'r. 1904	20,761	—	—	—	—	122,917	5·92

NOTES.

(*a*) The census returns for 1801 include Rhigos, which is not within the present area of the Rhondda District.

(*b*) Portions of the Llanwonno and Llantrisant Districts were added to the Rhondda District on October 1st, 1879. The Registrar-General estimated the population in the enlarged area in 1871 at 23,950.

Table 2.

Rateable value as stated in Poor Rate.

I am indebted to Mr. Evan Llewellyn for the following statement :—

Year ending March.	£	General District rate in the £. s.	d.
1885	340,003	1	6
1886	334,073	1	6
1887	339,370	1	0
1888	323,885	1	0
1889	350,500	1	6
1890	359,367	1	6
1891	388,879	1	3
1892	397,814	1	6
1893	403,106	1	6
1894	389,524	2	3
1895	382,429	2	9
1896	409,807	2	6
1897	443,290	2	6
1898	451,977	2	6
1899	462,354	2	6
1900	463,387	2	9
1901	490,352	2	9
1902	535,255	3	0
1903	539,336	3	0
1904	515,731	3	8
1905	**527,210**	**3**	**0**

The assessable value for the half year, ending March 31st 1905, is £453,629.

An analysis of the different rateable values shews that 88 per cent of the houses in the district are rated under £10 per annum, and that 95 per cent are rated under £20 per annum.

A penny rate produces £1,890 2s. 5d.

Table 3.

Showing the actual number of Births in the Rhondda, and the Birth-rates during the years 1884-1904.

Year.	Total Births.	Birth-rate per 1,000	Average of Ten years.
1884	2,924	45·2	42·0
1885	3,089	45·6	
1886	3,003	42·3	
1887	2,910	39·1	
1888	2,975	38·2	
1889	3,140	38·5	
1890	3,425	40·1	
1891	3,935	44·0	
1892	3,916	42·9	
1893	4,149	44·3	
1894	3,715	38·7	40·3
1895	4,245	43·1	
1896	4,328	42·9	
1897	4,109	39·7	
1898	4,120	38·8	
1899	4,089	37·5	
1900	4.469	40·0	
1901	4,586	40·0	
1902	4,937	42·2	
1903	4,897	40·9	
1904	**4,860**	**39·7**	

Table 4.

Comparative Birth-rate Table for 1904.

	Birth-rate per 1,000
England and Wales...	27·9
Rural England and Wales	26·8
76 Great Towns	29·1
142 Smaller Towns ...	27·5
Rhondda...	**39·7**

Table 5.

The number of houses, estimated population, number of births, and birth-rate per 1,000 for each Ward.

Ward.	No. of occupied houses.	Estimated population to middle of 1904	Number of Births.	Birth-rate per 1,000
1	1,731	10,249	362	35·3
2	2,029	12,013	494	41·1
3	1,838	10,882	379	34·8
4	1,687	9,989	433	43·3
5	2,123	12,569	578	45·9
6	1,856	10,989	465	42·3
7	1,749	10,355	433	41·8
8	2,736	16,198	494	30·4
9	2,471	14,629	592	40·4
10	2,541	15,044	630	41·8
Rhondda	**20,761**	**122,917**	**4860**	**39·7**

Table 6.

Showing the number of Illegitimate Births.

In Ystradyfodwg Sub-district.

In 1895 there was a number equivalent to 26 per 1,000 of total births.
In 1896 " " " 24 " "
In 1897 " " " 23 " "

In 1898 there were 105 equal to 25 per 1,000 of total births.
In 1899 " 75 " 18 " "
In 1900 " 111 " 24 " "
In 1901 " 97 " 21 " "
In 1902 " 97 " 15 " "
In 1903 " 115 " 23 " "
In 1904 " 100 " 20 " "

Table 7.

The number of Births, Birth-rate, number of Deaths, and Death-rate in each year since 1878.

Year.	No. of Births.	Birth-rate per 1,000.	No. of Deaths.	Death-rate per 1,000.
1878	1,531	32·6	749	15·9
1879	1,836	36·6	784	15·6
1880	2,050	38·4	1,287	24·1
1881	2,556	45·2	1,376	24·3
1882	2,682	44·0	1,260	21·1
1883	2,743	43·5	1,339	21·2
1884	2,924	44·1	1,555	23·4
1885	3,089	44·4	1,423	20·4
1886	3,003	41·2	1,821	25·0
1887	2,910	38·2	1,464	19·2
1888	2,975	37·4	1,440	18·1
1889	3,140	37·9	1,645	19·9
1890	3,425	39·8	1,756	20·4
1891	3,935	44·1	2,255	25·2
1892	3,916	42·9	1,804	19·7
1893	4,149	44·3	2,132	22·8
1894	3,715	38·7	1,706	17·7
1895	4,245	43·1	2,246	22·8
1896	4,328	42·9	2,105	20·8
1897	4,109	39·7	2,049	20·1
1898	4,120	38·8	1,979	18·8
1899	4,089	37·5	2,419	22·4
1900	4,469	40·0	2,181	19.9
1901	4,586	40·0	2,431	21·6
1902	4,937	42·2	2,190	19·2
1903	4,897	40·9	1,998	16·7
1904	**4,860**	**39·7**	**2,345**	**19·1**

Table 8.

Showing the number of houses, estimated population, number of deaths, and death-rate per 1,000 for each Ward.

Ward.	No. of occupied houses.	Estimated population in middle of 1904.	No. of Deaths from all causes	Death-rate per 1 000
1	1,731	10,249	173	16·8
2	2,029	12,013	225	18·7
3	1,838	10,882	197	18·1
4	1,687	9,989	172	17·2
5	2,123	12,569	233	18·5
6	1,856	10,989	285	25·9
7	1,749	10,355	204	19·7
8	2,736	16,198	280	17·2
9	2,471	14,629	278	19·0
10	2,541	15,044	298	19·8
Rhondda	**20,761**	**122,917**	**2,345**	**19·1**

Table 9.

Death-rate in the 76 Great Towns of England and Wales for 1904, based upon the estimated population at Midsummer, as given by the Registrar General.

TOWN.	Death Rate.
1—Hornsey	8·4
2—King's Norton	11·0
3—Handsworth (Staffs)	11·1
4—Walthamstow	11·9
5—Barrow-in-Furness	12·0
6—Willesden	12·2
7—Smethwick	12·4
8—Leyton	12·6
9—Hastings	13·1
10—Devonport	13·4
11—East Ham	13·5
12—Bournemouth	13·6
13—Croydon	13·8
14—Northampton	13·8
15—Reading	13·8
16—Southampton	13·8
17—Tottenham	13·9
18—Leicester	14·5
19—Wolverhampton	14·6
20—Aston Manor	15·0
21—Burton-on-Trent	15·0
22—Derby	15·1
23—Cardiff	15·2
24—Bristol	15.4
25—Coventry	15·5
26—Halifax	15·5
27—Ipswich	15·5
28—Newport (Mon.)	15·7
29—Rotherham	15·8
30—West Bromwich	15·9
31—Wallasey	16·0
32—London	16·1
33—York	16·1
34—Grimsby	16·2
35—West Hartlepool	16·3
36—Brighton	16.6
37—West Ham	16.7
38—Portsmouth	16·8
39—Sheffield	16·8
40—Bolton	16·9
41—Great Yarmouth	17·0
42—Bury	17·1
43—Blackburn	17·2
44—Bradford	17·5
45—Huddersfield	17·5
46—Nottingham	17·5
47—Stockton-on-Tees	17·5
48—Rochdale	17·7
49—Swansea	17·7
50—Preston	17·8
51—Walsall	17·8
52—Leeds	17.9
53—Hull	18·0
54—South Shields	18·1
55—Norwich	18·2
56—Oldham	18·3
57—Gateshead	18·5
58—Bootle	18·6
59—Plymouth	18·7
60—Rhondda	**19·1**
61—Birmingham	19·3
62—Newcastle on-Tyne	19·3
63—Sunderland	19·4
64—Tynemouth	19·4
65—Warrington	19·4
66—Wigan	19·4
67—Burnley	19.5
68—Merthyr Tydvil	19·7
69—Birkenhead	19·8
70—Middlesbrough	19·9
71—Stockport	19·9
72—St. Helens	20·3
73—Salford	21·0
74—Hanley	21·2
75—Manchester	21·3
76—Liverpool	21.9

Table 10.

Rates of Mortality in the Rhondda of children under one year of age from the principal infantile diseases per 1,000 births during 1898-1904.

Causes of Death.	1898		1899		1900		1901		1902		1903		1904	
	Total Deaths.	Rate per 1000 Births	Total Deaths.	Rate per 1000 Births	Total Deaths	Rate per 1000 Births	Total Deaths.	Rate per 1000 Births	Total Deaths.	Rate per 1000 Births	Total Deaths.	Rate per 1000 Births	Total Deaths.	Rate per 1000 Births
All Causes ...	793	192	1016	248	839	186	1020	222	883	178	778	158	925	190
Diarrhœa ...	177	42	326	80	140	23	267	58	52	10	88	17	173	35
Debility ..	170	41	181	44	71	15	138	30	153	30	107	21	146	30
Convulsions ...	139	33	152	37	165	36	188	41	171	34	130	26	123	25
Lung Diseases (except Tubercular)	120	29	152	37	121	27	134	29	192	38	134	27	150	30
Premature Birth ..	53	12	56	13	66	14	74	16	53	10	84	17	69	14
Dentition ..	34	8	38	9	28	6	30	6	34	6	35	7	23	4
Whooping Cough	19	4	37	9	29	6	18	3	21	4	27	5	25	5
Tubercular Diseases...	17	4	21	5	24	5	9	1	20	4	12	2	18	3
Measles ...	4	1	—	—	43	9	2	·2	38	7	2	·4	32	6

Table 11.

Deaths under one year of age in the different Wards during 1904 from the following diseases :—

Cause of Death.	Ward 1	Ward 2	Ward 3	Ward 4	Ward 5	Ward 6	Ward 7	Ward 8	Ward 9	Ward 10
Measles	3	1	—	—	2	7	5	7	—	7
Scarlet Fever ...	1	—	—	—	—	1	—	—	—	—
Whooping Cough ..	1	3	—	1	3	2	1	7	2	5
Diphtheria and Membranous Croup ...	—	—	—	—	—	1	—	—	1	—
Epidemic Influenza ...	—	—	—	—	—	—	—	—	—	—
Diarrhœa ...	11	33	16	10	19	17	9	16	16	26
Erysipelas ...	—	—	—	—	—	—	—	—	—	—
Accidents (General) ..	—	2	—	1	1	1	4	2	2	2

Table 12.

Infantile Mortality in the Rhondda and the 76 Great Towns of England and Wales.

TOWN.	Per 1000 Births.
1 – Hornsey ...	87
2 – King's Norton ...	102
3 – Hastings ...	107
4 – Bournemouth ...	109
5 – Devonport ...	114
6 – Southampton ...	114
7 – Willesden ...	115
8 – Burton-on-Trent ...	118
9 – Barrow-in-Furness	122
10 – Croydon ...	129
11 – Halifax ...	130
12 – Northampton ...	132
13 – Bristol ...	133
14 – Reading ...	133
15 – Brighton ...	134
16 – Handsworth (Staffs)	134
17 – West Hartlepool ...	134
18 – Walthamstow ...	135
19 – Huddersfield ...	136
20 – Coventry ...	137
21 – Tottenham ...	138
22 – East Ham ...	140
23 – Portsmouth ...	141
24 – Leyton ...	142
25 – Derby... ...	143
26 – Ipswich ...	143
27 – Smethwick ...	143
28 – Cardiff ...	144
29 – London ...	144
30 – South Shields ...	144
31 – Newport (Mon) ...	149
32 – Stockton-on-Tees ...	149
33 – West Bromwich ...	149
34 – Rochdale ...	151
35 – Tynemouth ...	152
36 – Wolverhampton ...	152
37 – Oldham ...	155
38 – Newcastle-on-Tyne	156
39 – Wallasey ...	157
40 – Sheffield ...	158
41 – Bury	163
42 – Leicester ...	163
43 – Rotherham ...	164
44 – Great Yarmouth ...	165
45 – Sunderland ...	165
46 – West Ham ...	165
47 – Bradford ...	166
48 – Bolton ...	167
49 – Middlesbrough ...	170
50 – York	170
51 – Warrington ...	171
52 – Swansea ...	172
53 – Plymouth ...	173
54 – St. Helens ...	174
55 – Gateshead ...	175
56 – Nottingham ...	175
57 – Walsall ...	175
58 – Leeds	176
59 – Norwich ...	179
60 – Birkenhead ...	180
61 – Bootle ...	180
62 – Hull	181
63 – Aston Manor ...	183
64 – Preston ...	183
65 – Grimsby ...	184
66 – Merthyr Tydvil ...	186
67 – Manchester ...	187
68 – Wigan ...	188
69 – **Rhondda** ...	**190**
70 – Blackburn ...	191
71 – Salford ...	193
72 – Birmingham ...	195
73 – Liverpool ...	196
74 – Stockport ...	201
75 – Hanley ...	206
76 – Burnley ...	228

Table 13.

Comparative Zymotic Death-rate Table for the Rhondda and the 76 Great Towns of England and Wales in 1904.

TOWN	Death-Rate.	TOWN.	Death Rate.
1—Hastings	·40	39—Bury	2·34
2—Bournemouth	·61	40—Blackburn	2·36
3—Kings Norton	·79	41—Rotherham	2·39
4—Hornsey	·90	42—Bradford	2·42
5—Southampton	1·08	43—Great Yarmouth	2·53
6—Smethwick	1·23	44—Merthyr Tydvil	2·53
7—Devonport	1·24	45—Plymouth	2·53
8—Burton-on-Trent	1·33	46—Leeds	2·56
9—Barrow-in-Furness	1·34	47—Leyton	2·56
10—Handsworth (Staffs)	1·35	48—Stockton-on-Tees	2·57
11—Derby	1·40	49—Nottingham	2·58
12—Croydon	1·42	50—Wallasey	2·69
13—Halifax	1·50	51—Wolverhampton	2·71
14—Ipswich	1·55	52—Middlesbrough	2·79
15—Northampton	1·60	53—York	2·81
16—Willesden	1·62	54—Walthamstow	2·87
17—Brighton	1·64	55—Gateshead	2·88
18—Bristol	1·64	56—Norwich	2·91
19—Newport (Mon)	1·64	57—Wigan	2·91
20—Coventry	1·69	58—Preston	2·93
21—South Shields	1·76	59—Aston Manor	2·97
22—Newcastle-on-Tyne	1·79	60—Stockport	3·07
23—Cardiff	1·80	61—Manchester	3·09
24—Reading	1·80	62—East Ham	3·13
25—West Bromwich	1·90	63—Walsall	3·22
26—Huddersfield	1·91	64—Birmingham	3·42
27—Tynemouth	1·93	65—Grimsby	3·43
28—Leicester	1·97	66—West Ham	3·43
29—West Hartlepool	1·97	67—Hull	3·52
30—Rochdale	2·03	68—Birkenhead	3·71
31—Portsmouth	2·13	**69—Rhondda**	**3·80**
32—Tottenham	2·14	70—Burnley	3·93
33—London	2·18	71—Hanley	4·10
34—Sheffield	2·20	72—Bootle	4·17
35—Swansea	2·23	73—St. Helens	4·21
36—Bolton	2·28	74—Salford	4·37
37—Oldham	2·31	75—Warrington	4·57
38—Sunderland	2·33	76—Liverpool	4·66

Table 14.

Showing the number of deaths in the Rhondda, from the principal Zymotic diseases since 1884.

YEAR.	Small Pox.	Measles	Scarlet Fever	Whooping Cough	Diphtheria	FEVERS			Diarrhœa	Total Zymotic Deaths	Zymotic Death-rate	Average Zymotic Death Rate of ten years.
						Typhus	Enteric	Simple Contin'd				
1884	—	5	116	29	15	—	55	1	64	285	4·4	2·9
1885	—	59	44	46	19	—	38	1	21	228	3·3	
1886	—	150	93	24	13	—	49	—	38	367	5·1	
1887	1	15	33	5	20	—	28	—	31	133	1·7	
1888	—	20	16	2	27	—	23	—	17	105	1·3	
1889	—	72	18	24	20	—	20	—	52	206	2·5	
1890	—	19	52	65	29	—	20	—	29	214	2·5	
1891	—	49	89	17	17	—	25	—	38	335	3·7	
1892	—	44	43	19	20	—	32	—	46	204	2·2	
1893	1	43	23	12	30	—	91	1	85	286	3·0	
1894	—	13	12	30	29	—	28	—	28	140	1·4	3·5
1895	—	79	27	72	66	—	25	—	75	344	3·4	
1896	—	38	43	63	54	—	28	3	144	373	3·6	
1897	—	138	19	52	78	—	28	—	61	376	3·6	
1898	—	16	14	33	146	—	40	1	105	355	3·3	
1899	—	—	10	70	186	—	55	—	169	489	4·4	
1900	—	121	35	58	125	—	24	—	118	481	4·3	
1901	—	3	43	33	136	—	53	—	327	595	5·1	
1902	1	109	27	40	81	—	21	—	109	389	3·3	
1903	—	8	38	52	42	—	44	—	109	293	2·4	
1904	—	**102**	**20**	**53**	**32**	—	**42**	—	**211**	**460**	**3·7**	

Table 15—Composing the Death-rates from Zymotic Diseases during the years 1884—1904 in the Rhondda with similar diseases in England and Wales (per 1,000 living).

Year.	Small-Pox		Measles.		Scarlet Fever.		Whooping Cough.		Diphtheria		FEVERS						Diarrhœa		Tot'l Zymotic Deaths	Zymotic Death-rate	
											Typhus		Enteric		Simple-con.						
	Rhondda	England and Wales.	Rhondda	England and Wales.	Rhondda	England and Wales	Rhondda	England and Wales	Rhondda	England and Wales	Rhondda	England and Wales	Rhondda	England and Wales	Rhondda	England and Wales	Rhondda	England and Wales	Rhondda	Rhondda	England and Wales.
1884	—	·08	·07	·42	1·79	40	·44	·42	·23	·18	—	·01	·85	·24	·01	·03	·97	·98	285	4·4	2·8
1885	—	·10	·87	·53	·64	·23	·67	·48	28	·16	—	·01	·56	·18	·01	·02	·31	50	228	3·3	2·2
1886	—	·01	2·11	·44	1·31	21	·33	·47	·18	·14	—	·01	69	·18	—	·02	·53	·90	367	5·1	2·6
1887	·01	·02	·20	·60	·44	·28	·06	·40	·26	·16	—	·008	·37	·19	—	·02	41	·73	133	1·7	2·7
1888	—	·04	·25	·35	20	·22	02	·43	·34	·17	—	·006	·29	·17	—	·01	·21	·45	105	1.3	2·1
1889	—	·001	·88	·52	·22	·23	·29	·43	·24	18	—	·005	·24	·18	—	·01	63	·65	206	2·5	2 4
1890	—	—	·22	·44	·60	·24	76	·47	·33	·17	—	005	·23	·18	—	·01	·33	·60	214	2 5	2 5
1891	—	·002	·54	·44	99	·17	·19	·47	·19	·17	—	·005	27	·17	—	·01	·42	·47	235	3·7	2·7
1892	—	·01	·48	·46	·47	·19	·20	·45	21	·22	—	003	·35	·14	—	·008	·50	50	204	2·2	2·7
1893	·01	·05	·45	·37	·24	·23	·12	·34	·32	·31	—	·005	97	23	·01	·009	90	·95	286	3·0	3·1
1894	—	·03	·13	·39	·12	·16	·31	·41	·30	·29	—	·004	·29	·16	—	·007	·29	·35	140	1·4	2·2
1895	—	·007	·80	·38	·27	·15	·73	·31	·67	·26	—	·002	·25	·18	—	·005	·76	·87	344	3·4	2·8
1896	—	·02	·37	·57	·42	·18	·62	·43	·53	29	—	·002	·27	·17	·02	·005	1·42	·55	373	3·6	2·5
1897	—	—	1 33	·10	·18	·14	·50	·31	75	·24	—	—	27	15	—	—	·58	·85	376	3·6	2·1
1898	—	·01	·15	·41	·13	·11	·31	·31	1·37	·24	—	—	·37	·18	·009	—	·98	96	355	3·3	2·2
1899	—	·01	—	·31	·09	·12	·64	·30	1·70	29	—	—	·50	·20	—	—	1·55	·98	489	4·4	2·2
1900	—	·01	1·09	·39	·31	·12	·51	·34	1·12	·29	—		·21	·17	—	—	1·05	·69	481	4 3	2·0
1901	—	·01	·02	·27	·37	·13	·28	·30	1·18	·27	—	—	·46	·17	—	—	2·85	·91	595	5 2	2·0
1902	·008	·08	·90	·38	·23	·15	·34	·29	69	·23	—	—	·18	·13	—	—	·93	·38	389	3·3	1·64
1903	—	·02	·06	·27	·31	·12	·43	·27	·35	·18	—	—	·36	·10	—	—	·91	·50	293	2·4	1·46
1904	—	·01	·83	·33	·16	·11	·43	·34	·26	·17	—	—	·34	·09	—	—	1 72	·86	460	3·7	1·94

Table 16.

Actual number of deaths from various causes in separate Wards.

WARDS.	Population	All causes	Zymotic	Small Pox	Measles	Scarlet Fever	Whooping Cough	Diphtheria	Typhoid Fever	Diarrhœa
1	10,249	173	25	—	4	3	4	—	3	11
2	12,013	225	52	—	3	1	6	2	4	36
3	10,882	197	28	—	5	—	2	2	1	18
4	9,989	172	31	—	4	1	2	1	9	14
5	12,569	233	51	—	6	2	6	7	2	28
6	10, 989	285	73	—	20	4	2	10	13	24
7	10,355	204	30	—	12	1	2	3	3	9
8	16,198	280	57	—	16	1	18	3	2	17
9	14,629	278	40	—	9	4	2	3	2	20
10	15,044	298	73	—	23	3	9	1	3	34
Rhondda ...	122,917	2 345	460	—	102	20	53	32	42	211

Table 17.

The death-rate per 1,000 from All Causes and from the principal Zymotic Diseases in the 10 Wards in 1904.

WARDS.	All Causes.	Zymotic.	Small Pox.	Measles.	Scarlet Fever	Whooping Cough.	Diphtheria.	Typhoid Fever.	Diarrhœa and Epidemic Enteritis.
1	16·3	2 4	—	3	·2	3	—	·2	1·0
2	18·7	4 3	—	2	·08	·4	1	3	2·9
3	18 1	2 5	—	·4	—	·1	·1	09	1·6
4	17 2	3 1	—	·4	·1	·2	·1	·9	1·4
5	18 5	4·0	—	·4	·1	4	·5	·1	2·2
6	25·9	6 6	—	1·8	·3	1	·9	1·1	2·1
7	19 7	2 8	—	1·1	·09	·1	·2	2	·8
8	17 2	3 5	—	9	.06	1 1	·1	1	1·0
9	19 0	2·7	—	6	·2	·1	2	·1	1·3
10	1·98	4 8	—	1 5	·1	5	·06	1	2·2
Rhondda ..	19·1	3·7	—	·8	1	4	2	3	1·7

Table 18.

Particulars as to the number of Occupants in Scarlet Fever infected houses during 1904.

Wards No.	Number of Houses	Number of Houses Letting Lodgings	Number of Occupants.			Persons per House
			Occupiers.	Lodgers	Total	
1	26	16	130	34	164	6·3
2	21	13	103	36	139	6·6
3	12	7	59	14	73	6·0
4	22	12	118	27	145	6·6
5	50	29	266	91	357	7·1
6	54	38	316	108	424	7·8
7	16	9	88	18	106	6·6
8	19	11	106	24	130	6·8
9	42	25	230	57	287	6·8
10	72	37	376	78	454	6·3
Rhondda	334	197	1792	487	2279	6·8

Table 19.

Ages of those attacked with Scarlet Fever in the Rhondda during 1904, with case death-rate.

	Under 1 year.	1 to 2 years.	2 to 3 years.	3 to 4 years.	4 to 5 years.	5 to 6 years.	6 to 15 years.	15 to 25 years.	25 years and upwards	All Ages.
Cases ...	10	17	49	66	57	55	152	20	22	448
Deaths	2	3	4	2	3	3	2	—	1	20
Per cent. of Deaths to Cases	20·0	17·6	8·1	3·0	5·2	5·4	1·3	—	4·5	4·4

Table 20.

Number of cases and deaths from Scarlet Fever in the Rhondda with case mortality in the ten years 1895—1904.

Year.	Number of cases notified.	Number of Deaths.	Mortality per cent of cases.
1895	704	27	3·8
1896	973	43	4·4
1897	574	19	3·1
1898	408	14	3·4
1899	534	10	1·8
1900	1828	35	1·9
1901	1393	43	3·0
1902	833	27	3·2
1903	872	38	4·3
1904	448	20	4·4

Table 21

At the end of December there were 30 cases of Scarlet Fever in 26 houses, distributed as follows :—

Wards	Cases	Houses
No. 1	7	5
,, 2	4	4
,, 3	—	—
,, 4	3	3
,, 5	—	—
,, 6	8	7
,, 7	—	—
,, 8	2	2
,, 9	3	3
,, 10	3	2
Rhondda	**30**	**26**

Table 22

Showing the seasonal incidence of Scarlet Fever in the Rhondda during 1904.

MONTH.	Cases Notified.		MONTH.	Cases Notified.	
	Total Number.	Primary Cases.		Total Number	Primary Cases.
January	51	35	July	44	34
February	59	43	August	27	18
March	40	27	September	28	24
April	31	26	October	29	19
May	59	45	November	29	22
June	29	22	December	22	19
	269	198		179	136

Table 23.

Scarlet Fever Notifications, 1904, and Ages of those attacked.

WARDS	Under 1 year.	1 to 2 years.	2 to 3 years.	3 to 4 years	4 to 5 years	5 to 6 years.	6 to 15 years.	15 to 25 years.	25 yrs. & upwards	TOTAL
No. 1 ..	1	—	2	7	4	3	19	--	—	36
,, 2 ...	—	—	3	4	5	2	11	—	1	26
,, 3 ..	—	1	1	1	3	3	3	1	5	8
,, 4 ..	—	—	3	5	4	2	13	3	2	32
,, 5 ..	2	3	10	8	7	13	19	4	2	68
,, 6 ..	1	2	6	7	10	12	24	4	2	68
,, 7 .	1	2	2	2	—	3	7	2	3	22
,, 8 ..	—	1	2	3	—	2	10	2	—	20
,, 9 .	2	—	9	11	11	5	17	—	3	58
,, 10 ..	3	8	11	18	13	10	29	4	4	100
Rhondda	10	17	49	66	57	55	152	20	22	448

Table 24.

Scarlet Fever cases in the Rhondda during 1904.

WARDS.	Total Fresh Cases.	Newly Infected Houses.	AGES OF FIRST ATTACKED.				Attending no School.
			Under 3 years	3 to 5 years	5 to 12 years.	12 years and upwards.	
No. 1 ..	36	26	2	7	14	3	9
,, 2 ...	26	21	2	6	11	2	6
,, 3 ..	18	12	1	4	4	3	7
,, 4 ...	32	22	1	8	11	2	7
,, 5 ...	68	50	11	10	24	5	24
,, 6 ...	68	54	6	14	28	6	24
,, 7 ...	22	16	5	1	5	5	11
,, 8 ...	20	19	3	3	12	1	7
,, 9 ...	58	42	5	16	16	5	19
,, 10 ..	100	72	13	23	17	9	35
Rhondda ...	448	334	49	92	152	41	149

Table 25

Scarlet Fever Notifications.

WARDS.	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	**1904**
No. 1	86	152	46	82	35	12	63	147	72	21	**36**
,, 2	86	67	40	136	94	56	158	145	33	26	**26**
,, 3	79	89	24	82	77	23	158	66	92	11	**18**
,, 4	69	122	90	44	64	12	228	210	46	72	**32**
,, 5	2	85	200	74	5	26	402	116	22	73	**68**
,, 6	8	25	203	29	12	13	242	79	21	117	**68**
,, 7	28	61	76	11	6	25	129	120	39	157	**22**
,, 8	47	22	202	65	40	47	91	106	241	114	**20**
,, 9	23	57	86	26	53	224	91	213	94	157	**58**
,, 10	13	24	6	25	22	96	266	191	173	124	**100**
Rhondda ..	441	704	973	574	408	534	1828	1393	833	872	**448**

Table 26. Scarlet Fever cases notified each month in the respective Wards in the Rhondda during 1904.

WARDS.	1		2		3		4		5		6		7		8		9		10		MONTHLY TOTAL.	
CASES	Cases Notified	Primary Cases	Cases Notified	Primary Cases	Cases Notified	Primary Cases	Cases Notified	Primary Cases	Cases Notified	Primary Cases	Cases Notified	Primary Cases	Cases Notified	Primary Cases	Cases Notified	Primary Cases	Cases Notified	Primary Cases	Cases Notified	Primary Cases	Cases Notified	Primary Cases
January ..	1	1	2	2	1	1	4	2	7	6	—	—	7	3	6	5	6	4	17	11	51	35
February ..	3	2	—	—	1	1	—	—	14	10	2	2	3	2	—	—	11	8	25	18	59	43
March	1	1	—	—	2	2	4	3	11	8	2	2	2	1	1	1	3	1	14	8	40	27
April ..	—	—	—	—	2	1	—	—	7	4	6	6	3	3	—	—	6	5	7	7	31	26
May ..	1	1	—	—	3	2	—	—	10	8	14	11	—	—	5	5	3	3	23	15	59	45
June ..	—	—	—	—	1	1	2	2	7	6	12	7	—	—	1	1	3	2	3	3	29	22
July ..	2	2	1	1	3	2	10	7	10	7	10	8	2	2	1	1	5	4	—	—	44	34
August	2	1	3	2	4	1	3	2	1	—	5	4	2	2	1	1	5	4	1	1	27	18
September ...	3	3		3	1	1	1	1	1	1	3	3	3	3	2	2	5	4	3	3	28	24
October	6	4	5	4	—	—	3	2	—	—	5	3	—	—	1	1	8	4	1	1	29	19
November	15	10	6	6	—	—	3	1	—	—	1	1	-	—	1	1	—	—	3	3	29	22
December .. .	2	1	3	3	—	—	2	2	—	—	8	7	—	—	1	1	3	3	3	2	22	19
Rhondda ...	36	26	26	21	18	12	32	22	68	50	68	54	22	16	20	19	58	42	100	72	448	334

Table 27.

Details of Inspected Houses in which Infectious Disease occurred during 1904.

WARDS NO.	Number of Houses.	Number of Houses Letting Lodgings.	Number of Occupants			Persons per House.
			Occupiers	Lodgers.	Total.	
1	62	34	333	69	402	6·4
2	44	26	215	63	278	6·3
3	37	21	195	43	238	6·4
4	177	96	980	222	1202	6·7
5	92	54	499	152	651	7·0
6	285	172	1636	436	2072	7·2
7	51	23	290	44	334	6·5
8	60	38	312	97	409	6·8
9	70	41	369	98	467	6·6
10	113	59	597	135	732	6·4
RHONDDA	991	564	5426	1359	6785	6·8

Table 28

Showing the number of cases of the notifiable Zymotic Diseases in the Rhondda since compulsory notification was adopted in 1894.

Year.	Cases.
1894	635
1895	933
1896	1,241
1897	1,031
1898	1,652
1899	2,700
1900	3,214
1901	3,039
1902	1,879
1903	1,597
1904	**1,240**

Table 29.

Particulars as to the number of Occupants in Diphtheria infected houses during 1904.

Wards No.	Number of Houses	Number of Houses Letting Lodgings	Number of Occupants.			Persons per House
			Occupiers.	Lodgers	Total	
1	10	6	66	7	73	7·3
2	10	4	56	6	62	6·2
3	14	8	82	14	96	6·8
4	28	19	147	57	204	7·2
5	31	18	175	49	224	7·2
6	58	33	315	74	389	6·7
7	17	9	93	18	111	6·5
8	12	9	64	23	87	7·2
9	10	7	52	11	63	6·3
10	6	5	36	16	52	8·6
Rhondda	196	118	1086	275	1361	6·9

Table 30.

Diphtheria Notifications, 1904, and Ages of those attacked.

WARDS	Under 1 year.	1 to 2 years.	2 to 3 years.	3 to 4 years.	4 to 5 years	5 to 6 years.	6 to 15 years.	15 to 25 years.	25 yrs. & upwards	TOTAL
No. 1 ..	—	1	—	—	—	1	7	1	—	10
,, 2 ...	1	1	3	—	2	1	2	—	—	10
,, 3 .	—	2	2	2	3	2	2	1	—	14
,, 4 ..	—	1	1	1	2	3	14	3	6	31
,, 5 ..	—	2	—	2	6	3	13	3	3	32
,, 6 ..	2	4	3	4	6	7	32	7	5	70
,, 7 ..	—	—	1	1	4	1	9	—	1	17
,, 8 ...	—	—	3	1	1	2	1	4	1	13
,, 9 ..	1	1	—	2	—	2	4	—	1	11
,, 10 ..	—	1	2	—	1	1	—	1	—	6
Rhondda	4	13	15	13	25	23	84	20	17	214

Table 31

Diphtheria Cases in the Rhondda during 1904.

WARDS	Total Fresh Cases	Newly Infected Houses	Ages of First Attacked.				Attending no School.
			Under 3 years	3 to 5 years	5 to 12 years	12 years and upwards	
1	10	10	1	—	8	1	2
2	10	10	5	2	2	1	6
3	14	14	4	5	2	3	9
4	31	28	2	3	11	12	16
5	32	31	2	8	15	6	11
6	70	58	8	9	24	17	28
7	17	17	1	5	8	3	5
8	13	12	3	2	3	4	9
9	11	10	2	2	5	1	5
10	6	6	3	1	1	1	5
Rhondda ...	214	196	31	37	79	49	96

Table 32.

The number of Cases notified and Deaths registered from Diphtheria in the Rhondda during each month in 1898, 1899, 1900, 1901, 1902, 1903, and 1904.

MONTHS.	1898		1899		1900		1901		1902		1903		1904	
	Cases	De'ths	Cases	De'ths	Cases	De'ths	Cases	De'ths	Cases	De'ths	Cases	De'ths	Cases	De'ths
January .	45	15	177	15	138	22	78	10	80	5	47	4	27	2
February .	48	8	199	13	79	8	48	9	68	3	31	3	17	2
March .	34	5	204	18	61	9	90	14	93	6	28	3	18	4
April .	24	2	89	15	40	5	73	13	97	10	34	7	17	3
May .	15	2	191	22	73	8	75	8	55	1	20	3	11	3
June .	10	5	176	19	93	10	170	13	58	8	23	2	20	5
July .	19	3	232	17	168	15	145	16	67	17	24	4	12	2
August .	23	6	112	13	89	9	67	10	35	5	19	3	8	2
Sept'mber.	126	31	95	17	104	9	114	9	25	2	10	1	19	—
October .	124	31	108	10	88	11	99	11	47	3	19	1	31	2
Nov'mber.	190	22	115	14	98	13	94	11	61	10	30	6	27	4
December.	225	28	106	13	71	6	75	11	71	11	42	5	7	3
Total ...	883	146	1804	186	1102	125	1128	135	757	81	327	42	214	32

Table 33.

Ages of those attacked with Diphtheria in the Rhondda during 1904, with case death-rate.

	Under 1 year	1 to 2 years	2 to 3 years	3 to 4 years	4 to 5 years	5 to 6 years	6 to 15 years	15 to 25 years	25 and upwards	All Ages.
Cases	4	13	15	13	25	23	84	20	17	214
Deaths	2	6	3	8	4	3	4	1	1	32
Per cent of deaths to cases	50·0	46·1	20·0	61·5	16·0	13·0	4·7	5·0	5·8	14·9

Table 34.

Diphtheria Notifications in the Rhondda.

WARDS.	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904
Ward No. 1 ...	13	21	3	16	24	12	13	20	22	20	10
Ward No. 2 ...	5	4	8	68	92	59	96	135	174	36	10
Ward No. 3 .	1	4	—	41	6	8	126	63	74	92	14
Ward No. 4 ..	—	6	12	20	22	4	119	292	100	42	31
Ward No. 5 ...	4	6	14	8	1	123	93	78	14	19	32
Ward No. 6 ...	—	—	12	21	139	177	28	71	8	16	70
Ward No. 7 ..	1	—	—	17	22	110	34	24	17	16	17
Ward No. 8 ..	3	14	7	16	348	803	195	151	98	47	13
Ward No. 9 ...	2	4	3	26	129	283	91	63	79	24	11
Ward No. 10 ...	—	7	20	14	100	225	307	231	171	15	6
Totals .. .	29	66	79	247	883	1804	1102	1128	757	327	214
Deaths	29	66	54	78	146	186	125	135	81	42	32
Per cent of Deaths to Cases ...	100	100	68·3	31·5	16·8	10·3	11·3	11·9	10·7	12·8	14·9

Table 35. Diphtheria cases notified each month in the respective Wards in the Rhondda during 1904.

WARDS.	1		2		3		4		5		6		7		8		9		10		MONTHLY TOTAL.	
CASES.	Cases Notified	Primary Cases	Cases Notified	Primary Cases	Cases Notified	Primary Cases	Cases Notified	Primary Cases	Cases Notified	Primary Cases	Cases Notified	Primary Cases	Cases Notified	Primary Cases	Cases Notified	Primary Cases	Cases Notified	Primary Cases	Cases Notified	Primary Cases	Cases Notified	Primary Cases
January	2	2	2	2	3	3	9	8	3	3	2	2	3	3	1	1	1	1	1	1	27	26
February	1	1	2	2	—	—	1	1	—	—	8	8	3	3	1	1	—	—	1	1	17	17
March	1	1	—	—	2	2	5	5	4	4	3	3	—	—	—	—	2	1	1	1	18	17
April	—	—	1	1	1	1	3	2	3	3	3	3	2	2	3	3	—	—	1	1	17	16
May	—	—	—	—	2	2	2	2	1	1	2	2	—	—	3	3	1	1	—	—	11	11
June . ..	—	—	1	1	2	2	2	2	2	2	8	6	1	1	3	2	1	1	—	—	20	17
July	1	1	—	—	—	—	1	—	1	1	7	5	—	—	—	—	2	2	—	—	12	9
August	—	—	—	—	1	1	2	2	1	1	1	1	1	1	—	—	2	2	—	—	8	8
September	—	—	—	—	—	—	3	3	2	2	5	4	6	6	1	1	1	1	1	1	19	18
October	1	1	—	—	1	1	1	1	1	1	24	18	1	1	—	—	1	1	1	1	31	25
November	3	3	2	2	—	—	1	1	14	13	6	5	—	—	1	1	—	—	—	—	27	25
December	1	1	2	2	2	2	1	1	—	—	1	1	—	—	—	—	—	—	—	—	7	7
Rhondda	10	10	10	10	14	14	31	28	32	31	70	58	17	17	13	12	11	10	6	6	214	196

Table 36

Typhoid Fever Notifications.

Wards.	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904
No. 1	5	21	17	17	13	17	19	70	22	19	23
,, 2	4	8	10	55	13	17	14	40	1	7	18
,, 3	11	3	6	1	25	5	13	37	4	1	5
,, 4	10	42	8	8	87	39	16	39	20	9	150
,, 5	38	34	21	31	23	19	14	19	10	7	10
,, 6	10	12	17	15	34	16	6	4	3	4	221
,, 7	12	4	15	19	17	25	3	12	16	33	12
,, 8	7	7	23	37	86	50	27	28	9	175	25
,, 9	40	13	30	19	43	115	42	22	13	9	11
,, 10	18	9	6	8	20	59	18	37	19	11	5
Rhondda ...	155	153	153	210	361	362	172	308	117	275	480

Table 37.

The Seasonal Distribution of Typhoid Fever was as follows :

	CASES NOTIFIED.	
	Total.	Primary Cases.
January	9	8
February	5	5
March	5	5
April	5	5
May	9	9
June	22	16
July	9	9
August	20	8
September	15	12
October	10	8
November	338	259
December	33	18
Whole Year	480	362

Table 38.

Typhoid Fever in the Rhondda during 1904, and Ages of those attacked with case death-rate.

	Under 1 year.	1 to 5 years.	5 to 15 years.	15 to 25 years.	25 to 65 years.	65 years and upwards	All Ages.
Cases	—	41	177	113	148	1	480
Deaths	—	3	12	11	16	—	42
Percentage of Deaths to cases	—	7·3	6·7	9·7	10·8	—	8·7

Table 39.

Showing the number of cases of Typhoid Fever, the Number of Deaths, and the case mortality since 1894.

Year.	Number of cases notified.	Number of Deaths.	Mortality per cent of cases.
1894	155	28	18·0
1895	153	25	16·0
1896	153	28	18·0
1897	210	28	13·0
1898	361	40	11·0
1899	362	55	15·0
1900	172	24	13·9
1901	308	53	16·8
1902	117	22	18·8
1903	275	44	16·0
1904	480	42	8·7

Table 40.

Particulars as to the Number of Occupants in Typhoid Fever infected houses during 1904.

Ward No.	Number of Houses.	Number of Houses Letting Lodgings.	Number of Occupants			Persons per House.
			Occupiers	Lodgers.	Total.	
1	18	6	93	18	111	6·1
2	7	4	33	8	41	6·0
3	5	2	22	8	30	6·0
4	116	57	645	116	761	6·5
5	7	3	38	4	42	6·0
6	161	93	941	235	1176	7·3
7	12	4	73	6	79	6·5
8	21	12	117	29	146	7·0
9	10	7	57	25	82	8·2
10	5	1	27	1	28	5·6
RHONDDA	362	189	2046	450	2496	6·8

Table 41.

Typhoid Fever Notifications 1904, and ages of those attacked.

Wards	Under 1 year.	1 to 2 years.	2 to 3 years.	3 to 4 years.	4 to 5 years.	5 to 6 years.	6 to 15 years.	15 to 25 years.	25 to 65 years	65 years and upwards	Total
No. 1 ..	—	1	—	1	—	—	10	5	6	—	**23**
,, 2 ...	—	—	—	—	—	—	4	6	8	—	**18**
,, 3 ...	—	—	—	—	1	—	1	1	2	—	**5**
,, 4 ...	—	1	3	4	9	4	42	39	48	—	**150**
,, 5 ...	—	—	—	—	—	—	6	2	2	—	**10**
,, 6 ..	—	—	—	7	11	6	84	46	66	1	**221**
,, 7 ...	—	—	—	—	—	2	6	2	2	—	**12**
,, 8 ...	—	—	—	—	2	3	4	5	11	—	**25**
,, 9 ...	—	—	—	—	1	—	4	5	1	—	**11**
,, 10 ...	—	—	—	—	—	—	1	2	2	—	**5**
Rhondda	—	2	3	12	24	15	162	113	148	1	**480**

Table 42. Typhoid Fever cases notified each month in the several Wards in the Rhondda Urban District during 1904.

WARDS.	1		2		3		4		5		6		7		8		9		10		MONTHLY TOTAL.	
CASES.	Cases Notified	Primary Cases	Cases Notified	Primary Cases	Cases Notified	Primary Cases	Cases Notified	Primary Cases	Cases Notified	Primary Cases	Cases Notified	Primary Cases	Cases Notified	Primary Cases	Cases Notified	Primary Cases	Cases Notified	Primary Cases	Cases Notified	Primary Cases	Cases Notified	Primary Cases
January	2	1	—	—	—	—	—	—	1	1	1	1	—	—	—	—	3	3	2	2	9	8
February	—	—	2	2	—	—	1	1	—	—	—	—	1	1	—	—	—	—	1	1	5	5
March	2	2	—	—	—	—	—	—	—	—	1	1	—	—	—	—	2	2	—	—	5	5
April	3	3	—	—	—	—	—	—	—	—	—	—	1	1	1	1	—	—	—	—	5	5
May	2	2	—	—	—	—	1	1	—	—	—	—	1	1	4	4	1	1	—	—	9	9
June	4	3	1	1	—	—	—	—	2	2	1	1	—	—	12	8	2	1	—	—	22	16
July	5	5	—	—	—	—	—	—	1	1	1	1	—	—	2	2	—	—	—	—	9	9
August	5	2	8	2	1	1	—	—	3	—	—	—	1	1	2	2	—	—	—	—	20	8
September	—	—	3	1	1	1	3	2	—	—	—	—	4	4	2	2	1	1	1	1	15	12
October	—	—	3	1	1	1	—	—	—	—	2	2	2	2	—	—	1	1	1	1	10	8
November	—	—	1	—	1	1	134	107	3	3	196	145	—	—	2	2	1	1	—	—	338	259
December	—	—	—	—	1	1	11	5	—	—	19	10	2	2	—	—	—	—	—	—	33	18
Rhondda	23	18	18	7	5	5	150	116	10	7	221	161	12	12	25	21	11	10	5	5	480	362

Table 43.

Deaths from Diarrhœa in the Third Quarter of 1904, together with the Rainfall and Earth Temperature at a depth of four feet.

	JULY				AUGUST					SEPTEMBER				Total for Three Months
Week ending	9	16	23	30	6	13	20	27	Sept. 3	10	17	24	Oct. 1	
Rainfall in inches	0·06	0·24	2·17	1·81	0·72	0·81	1·25	2·25	1·32	1·70	1·24	0·00	1·22	14·79
Mean Temperature 4 feet deep...	54	55	57	58	59	59	58	57	57	56	56	55	54	
Ward No. 1	—	—	—	2	1	—	—	1	—	1	—	1	—	6
,, 2	—	2	2	—	7	10	3	1	2	3	1	—	—	31
,, 3	—	—	2	—	1	6	3	2	1	—	1	—	—	16
,, 4	1	1	1	—	—	2	1	3	1	2	1	—	1	14
,, 5	—	1	1	2	2	5	6	1	2	—	2	1	—	23
,, 6	—	—	—	—	2	2	3	3	4	3	3	—	2	22
,, 7	—	—	—	2	1	—	2	1	—	2	—	—	—	8
,, 8	—	—	—	2	—	2	3	3	3	—	—	—	—	13
,, 9	—	—	—	1	1	2	6	3	—	1	2	—	—	16
,, 10	—	—	—	4	2	2	4	3	3	1	3	2	—	24
Rhondda	1	4	6	13	17	31	31	21	16	13	13	4	3	173

Table 44.

Puerperal Fever Notifications.

WARDS.	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904
No. 1 ...	4	2	1	1	—	—	—	4	6	—	1
No. 2 ...	2	2	3	1	—	3	2	3	4	2	3
No. 3 ...	—	—	1	—	—	1	—	2	—	3	1
No. 4 ...	—	4	—	—	—	—	—	—	3	1	—
No. 5 ...	8	6	7	4	2	5	4	1	7	1	2
No. 6 ...	1	1	5	4	5	4	3	6	4	1	6
No. 7 ..	—	—	2	1	6	3	1	6	2	2	—
No. 8 ..	1	2	2	4	3	4	2	2	—	2	5
No. 9 ...	1	2	—	—	4	1	1	2	10	7	4
No. 10 ...	—	1	—	1	1	2	6	2	7	2	—
Totals	17	20	21	16	21	23	19	28	43	21	22

Table 45

Showing the number of deaths and the death-rates from Puerperal Fever in the Rhondda during the years 1884-1904.

Year.	Number of Deaths.	Death-rate per 1,000.	Average of 10 years.
1884	27	·41	·19
1885	21	·31	
1886	8	·11	
1887	14	·18	
1888	13	·16	
1889	6	·07	
1890	11	·12	
1891	24	·26	
1892	15	·16	
1893	20	·21	
1894	17	·17	
1895	12	·12	·12
1896	21	·20	
1897	10	·09	
1898	4	·03	
1899	16	·14	
1900	9	·08	
1901	21	·18	
1902	23	·19	
1903	11	·09	
1904	9	·07	

Table 46.

The following Table gives the Occupation (if any) and the Number of Adults who died from Consumption during the year.

Butcher	1
Carpenter	1
Chaff Cutter	1
Colliers	20
Colliery Block Layer	1
Colliery Checkweigher	1
Colliery Engine Drivers	2
Colliery Lamp Locker	1
Colliery Pipe Man	1
Colliery Storekeeper	1
Confectioner	1
Domestic Servant	1
Draper Saleswomen	2
Dressmakers	3
Farmer	1
Fruiterer	1
Grocer	1
Insurance Agent	1
Labourer	1
Licensed Victuallers	2
Pianist	1
Saddler	1
School Teachers	4
Shoemaker	1
Stoker	1
Stonemason	1
Student	1
Tailor	1
	55

Table 47.

Showing the number of deaths and the death-rates from Phthisis in the Rhondda during the years 1884-1904.

Year	Number of Deaths	Death-Rate per 1000	Average of 10 years
1884	72	1·11	1·07
1885	80	1·18	
1886	81	1·14	
1887	82	1·10	
1888	88	1·13	
1889	102	1·25	
1890	84	·98	
1891	95	1·06	
1892	85	93	
1893	77	·82	
1894	90	·93	·87
1895	82	·83	
1896	89	·88	
1897	108	1·04	
1898	103	·97	
1899	94	·86	
1900	83	·74	
1901	107	·93	
1902	99	·84	
1903	90	·75	
1904	**115**	**·94**	

Table 48.

Causes of death as recorded at Coroner's Inquests.

	1897	1898	1899	1900	1901	1902	1903	1904
Accidents in Collieries	44	42	61	43	63	44	59	56
Alcoholism	—	1	2	1	1	—	—	2
Aneurism	—	1	1	1	—	—	—	1
Apoplexy	—	1	3	3	3	2	4	3
Blood Poisoning	1	1	—	1	—	—	2	1
Burns	11	6	12	6	14	13	7	7
Convulsions	14	13	10	8	10	10	10	11
Crushed by Wheel	—	—	—	1	—	—	1	—
Diarrhœa	—	1	—	—	—	—	—	1
Drowning	4	3	2	5	6	2	4	1
Embolism	—	1	1	—	—	—	—	—
Exposure	—	1	1	—	—	1	1	—
Falls	10	3	3	7	3	9	8	8
Fall from Bridge	—	—	3	—	—	—	—	—
Found Dead	1	—	—	1	3	1	1	1
Fracture of Spine	1	1	—	—	—	—	—	—
Heart Disease	7	15	11	6	7	11	10	10
Haemorrahge	1	—	—	—	—	—	—	2
Hernia	1	1	—	—	—	—	—	—
Homicide	—	1	—	—	—	—	—	—
Injudicious Feeding	1	—	—	1	—	—	—	—
Injury (Character not stated)	—	—	1	—	3	—	—	—
Injury to Head	1	—	—	1	5	1	1	—
Kick of Horse	1	1	—	—	—	—	1	—
Malnutrition	—	—	1	—	—	—	—	—
Manslaughter	2	—	1	—	1	1	1	—
Misadventure	—	1	2	—	—	—	—	—
Murder	—	—	—	—	—	1	—	1
Natural Causes	—	2	3	3	1	5	3	2
Not known	1	—	—	—	—	—	—	—
Old Age	—	—	—	1	—	—	—	—
Overlain	2	1	—	4	2	—	—	—
Perforation of Stomach	—	—	1	—	—	—	—	—
Peritonitis	—	—	—	—	—	—	—	1
Poisoning (Carbolic Acid)	—	—	—	—	—	—	—	1
Poisoning (Ptomaine)	1	—	—	—	—	—	—	—
Run over by Cart	1	3	1	3	1	1	4	2
Run over by Train	6	2	3	2	2	1	2	—
Run over by Tram	—	—	1	—	3	—	—	—
Scalds	8	3	6	8	11	6	4	7
Scarlet Fever	—	—	—	1	—	—	—	—
Starvation	—	—	—	—	—	1	—	—
Strain	1	—	—	—	—	—	—	—
Suffocation	1	3	1	—	3	2	4	6
Suicide	4	1	3	2	1	2	1	1
Syncope	1	1	1	7	2	1	5	10
Tumour	1	1	—	—	—	—	—	—
Want of proper attention at birth	1	1	—	—	—	—	—	—
Rhondda	**128**	**112**	**135**	**117**	**148**	**115**	**133**	**135**

Table 49.

New Houses. Plans passed.

Year	Houses	Shops	Hotels	Churches and Chapels
1889	372	20	3	1
1890	829	17	2	6
1891	1187	27	2	6
1892	883	25	1	3
1893	768	26	2	2
1894	1317	39	—	6
1895	544	18	—	5
1896	459	26	1	3
1897	425	10	2	6
1898	156	22	2	3
1899	159	29	6	3
1900	345	16	2	2
1901	451	12	—	6
1902	849	14	—	9
1903	1036	21	1	6
1904	**527**	**10**	**1**	**6**

During 1904, there were passed for occupation 594 buildings.

Table 50

Summary of Inspector's Work, 1904.

DISTRICT.	1	2	3	4	5	6
Accumulation of Refuse ...	35	25	38	46	44	42
Accumulation of Manure	29	15	22	8	10	15
Blocked Drain ...	65	91	65	75	176	67
Blocked W.C. ...	63	86	70	82	45	90
Defective Drain ...	65	19	16	48	74	57
Lip Trap to Gully Trap ...	26	32	13	48	41	49
Unventilated Drain ...	9	9	—	40	—	—
Defective Ventilating Pipe	10	28	1	2	9	—
Waste Pipe Direct ...	1	5	1	2	2	—
No Water in W.C. ...	81	18	91	166	125	40
Dilapidated or Filthy W.C.	43	102	66	32	14	54
No W.C.	2	—	—	154	—	—
Dilapidated back area ...	118	58	123	45	38	78
Defective or no Rain Water Shoots ...	129	67	83	29	115	84
Dirty Houses ...	9	26	10	13	2	20
Overcrowding ...	16	14	7	12	6	24
Animals as a Nuisance ...	48	16	6	15	35	—
Privy to W.C. ...	35	—	2	14	—	—
Other Nuisances ...	59	32	10	24	64	72

Table 51

Summary of District Inspectors' work during 1904, as reported to the M.O.H. each week.

DISTRICT.	1	2	3	4	5	6
Cases of Infectious Disease Investigated.	144	254	488	114	92	166
Re-visits to—						
Infected houses ..	848	2150	3940	674	823	1023
Drain Connections ...	386	230	226	370	274	63
Slaughter-houses ...	155	168	193	177	158	140
Lodging-houses ...	—	19	1	53	—	—
Bake-houses ...	225	233	142	205	235	281
Dairies	147	20	98	153	20	123
House to House ...	2370	2298	2074	2594	2413	2369
New Buildings visited ...	847	341	576	664	823	985
Special Complaints ...	5	41	67	22	6	41
Letters sent by Inspectors	534	329	376	378	436	395
„ referred to M.O.H	89	16	51	27	102	10
„ „ to Council	32	12	44	18	33	30
New Buildings certified ..	107	84	124	92	130	56
No. of Connections made	50	43	26	46	109	20
No. of Houses connected	190	70	88	131	226	54
T'tal No. of „ ..	3673	3536	3580	2904	3469	3282
„ Unconnected ...	157	51	71	105	38	82
Fines :—						
Without Brushes ...	—	2/6	—	—	2/6	—
Without Bell ...	—	2/6	—	—	—	—
Neglecting Lanes ...	5/-	—	—	—	10/	10/-
Without Cover ...	—	—	—	—	17/6	—
Scavenging after 1.0 p.m.	—	—	—	—	5/-	—
Depositing upon Unauthorised Ground	10/-	£2/10/	—	£1/-/-	£1/12/6	—
Failing to send out Cart	—	—	—	—	—	£1/-/-
Leaving depôt gate unlocked ...	—	--	—	3/-	—	—

Table 52.

Workshops and Workplaces in the Rhondda in each Inspector's District.

	1	2	3	4	5	6	TOTAL
Boot Makers	26	24	27	15	17	6	118
Bakers	35	29	27	20	24	21	156
Blacksmiths	2	4	4	2	6	—	18
Barbers	12	17	17	14	15	15	90
Basket Makers	—	–	1	—	—	—	1
Carpenters	8	13	7	10	8	6	52
Fried Fish Shops	11	13	7	7	6	12	56
Coachmakers	1	3	1	1	2	1	9
Confectioners	—	—	—	1	—	—	1
Cycle Repairers	1	3	2	—	2	1	9
Dressmakers	57	22	33	9	25	57	203
Dr'smakers & Milliners combined	1	—	—	—	3	2	6
Glaziers	—	—	2	2	—	—	4
Jewellers	3	6	7	2	4	5	27
Milliners	18	14	14	8	10	9	73
Knitters	1	—	—	—	—	—	1
Picture Framers	3	2	2	—	1	—	8
Printers	2	1	—	—	—	—	3
Plumbers	—	3	2	2	—	—	7
Saddlers	2	1	2	2	2	1	10
Monumental Masons	2	—	1	3	1	—	7
Sewing Machine Fitters ...	—	1	—	—	—	—	1
Sweet Makers	—	—	1	—	—	—	1
Tailors	18	19	12	8	11	8	76
Tinmen	—	—	1	2	1	—	4
Quarries	—	8	7	—	—	—	15
Total	203	183	177	108	138	147	956

Table 53.

Premises requiring Periodical Inspection.

DISTRICT	1	2	3	4	5	6	Whole District
Bakehouses	33	30	27	24	25	23	162
Cowsheds	31	41	22	21	16	14	145
Dairies and Milkshops	34	45	30	32	26	24	191
Lodging-houses	—	9	—	2	—	—	11
Slaughter-houses	9	6	12	5	4	3	39
Offensive Trades	—	1	1	—	—	—	2

Table I.

Vital Statistics of Whole District during 1904 and previous years.

Rhondda Urban District.

Year.	Population estimated to middle of each year.	BIRTHS.		Total Deaths registered in the District.				Total Deaths in Public Institutions in the District.	Deaths of non-resid'nts registered in Public Institutions in the district	Deaths of residents registered in Public Institutions beyond the District	Nett Deaths at all ages belonging to the District.	
				Under 1 year of age		At all ages.						
		Number	Rate*	Number	Rates per 1000births registered	Number	Rate*				Number	Rate*
1	2	3	4	5	6	7	8	9	10	11	12	13
1894	95,904	3,715	38·7	757	204	1 706	17 7	No.	recor	ds	No re	cords
1895	98,356	4,245	43·1	997	234	2,246	22 8	,,	,,	,,	,,	,,
1896	100,870	4,328	42·9	855	197	2,105	20 8	,,	,,	,,	,,	,,
1897	103,445	4,109	39·7	838	204	2,049	19 8	41	—	32	2,081	20·1
1898	106 094	4,120	38 8	793	192	1.979	18 6	27	3	20	1,999	18·8
1899	108,807	4,089	37·5	1016	248	2,419	22·2	35	—	25	2,444	22·4
1900	111,587	4,469	40 0	839	186	2,181	19·5	57	3	49	2,227	19·9
1901	114,439	4,586	40·0	1020	222	2,431	21 2	24	2	40	2,469	21·6
1902	117.007	4,937	42·2	883	178	2.190	18·7	23	3	56	2,243	19 2
1903	119,652	4,897	40 9	776	158	1,946	16·2	24	1	53	1,998	16.7
Averages for years 1894-1903	107,616	4,349	40.3	867	203	2,125	19·7	†31	†1 7	†39	†2208	19·8
1904	122,310	4,860	39·7	923	189	2,301	18 8	47	9	56	2,345	19.1

*Rates in Columns 4, 8, and 13 calculated per 1,000 of estimated population.
† Averages for seven years 1897-1903.

NOTE.—The deaths to be included in Column 7 of this table are the whole of those registered during the year as having actually occurred within the district or division. The deaths to be included in Column 12 are the number in Column 7, corrected by the subtraction of the number in Column 10 and the addition of the number in Column 11.

The apparent discrepancy in the table is due to the fact that 3 of the deaths of non-residents did not occur in Public Institutions

In columns 5 and 6 the deaths of two residents under one year of age which occurred outside the district are not included.

By the term "Non-residents" is meant persons brought into the district on account of sickness or infirmity, and dying in public institutions there; and by the term "Resident" is meant persons who have been taken out of the district on account of sickness or infirmity, and have died in Public Institutions elsewhere.

The "Public Institutions" to be taken into account for the purposes of these Tables are those into which persons are habitually received on account of sickness or infirmity, such as hospitals, workhouses, and lunatic asylums.

Area of District in acres (exclusive of area covered by water) 23,885.

Total Population at all ages 113.735	At Census of 1901
Number of inhabited houses 19,210	
Average number of persons per house 5·9	

Table II. Vital Statistics of Separate Localities (*continued on next page*).

YEAR	WARD 1				WARD 2				WARD 3				WARD 4				WARD 5			
	Population estimated to middle of each year. *a*	Births Registered *b*	Deaths at all Ages. *c*	Deaths under 1 year *d*	Population estimated to middle of each year. *a*	Births Registered *b*	Deaths at all Ages *c*	Deaths under 1 year *d*	Population estimated to middle of each year. *a*	Births Registered *b*	Deaths at all Ages *c*	Deaths under 1 year *d*	Population estimated to middle of each year. *a*	Births Registered *b*	Deaths at all Ages *c*	Deaths under 1 year *d*	Population estimated to middle of each year. *a*	Births Registered *b*	Deaths at all Ages *c*	Deaths under 1 year *d*
1901	8,881		200	75	11,516		244	89	10,084		199	77	9,653		262	107	12,267		250	104
1902	9,768		175	62	11,677		237	94	10,690		171	68	9,685		202	84	12,142		232	88
1903	9,921	353	152	55	11,703	482	193	87	10.649	408	188	69	9,767	419	166	66	12 324	553	218	95
1904	10,249	362	173	74	12,013	494	225	98	10,882	379	197	72	9.989	433	172	60	12.569	578	233	78

Table II. (*contin.*) Vital Statistics of Separate Localities.

YEAR.	WARD 6.				WARD 7				WARD 8				WARD 9				WARD 10			
	Population estimated to middle of each year. *a*	Births Registered *b*	Deaths at all Ages. *c*	Deaths under 1 year *d*	Population estimated to middle of each year *a*	Births Registered *b*	Deaths at all Ages *c*	Deaths under 1 year *d*	Population estimated to middle of each year *a*	Births Registered *b*	Deaths at all Ages *c*	Deaths under 1 year *d*	Population estimated to middle of each year *a*	Births Registered *b*	Deaths at all Ages *c*	Deaths under 1 year *d*	Population estimated to middle of each year *a*	Births Registered *b*	Deaths at all Ages *c*	Deaths under 1 year *d*
1901	10,235		201	87	9,321		186	73	13,690		299	126	13,346		316	144	15,446		312	138
1902	10,501		195	88	9,650		187	84	14,783		280	97	13,740		258	94	14,401		306	124
1903	10,371	467	170	66	10,069	426	175	65	15,841	592	262	97	13,899	569	218	78	14,847	628	256	100
1904	10,989	465	285	110	10,355	433	204	94	16,198	494	280	106	14,629	592	278	106	15,044	630	298	127

NOTES : (*a*) Deaths of Residents occurring in public institutions beyond the district are included in sub-column *c* of this Table, and those of non-residents registered in public institutions in the district excluded.

(*b*) Deaths of Residents occurring in public institutions, whether within or without the district, are allotted to the respective localities according to the addresses of the deceased.

(*c*) Previous to 1903, the births were not allotted to their respective wards.

Table III. Rhondda Urban District.

Cases of Infectious Disease notified during the year 1904.

NOTIFIABLE DISEASE.	CASES NOTIFIED IN THE WHOLE DISTRICT.							TOTAL CASES NOTIFIED IN EACH WARD.										NO. OF CASES REMOVED TO THE HOSPITAL FROM EACH WARD.									
	At all Ages	At Ages—Years.						1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
		Under 1	1 to 5	5 to 15	15 to 25	25 to 65	65 and upwd's				H										H						
Small Pox ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cholera ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Diphtheria ...	214	4	66	107	20	17	—	10	10	14	31	32	70	17	13	11	6	3	1	2	18	7	38	9	5	2	2
Membranous Croup	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Erysipelas ...	76	—	2	8	10	50	6	8	4	4	10	2	6	6	3	4	29		—	—	—	—	—	—	—	—	—
Scarlet Fever ...	448	10	189	207	20	22	—	36	26	18	32	68	68	22	20	58	100	—	—	—	—	—	—	—	—	—	—
Typhus Fever ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enteric Fever ..	477	—	41	174	113	148	1	23	18	5	150	10	221	10	25	10	5	20	9		50	4	24	7	22	6	2
Relapsing Fever ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Continued Fever...	3	—	—	3	—	—	—	—	—	—	—	—	—	2	—	1	—	—	—	—	—	—	—	—	—	—	—
Puerperal Fever ...	22	—	—	—	12	10	—	1	3	1	—	2	6	—	5	4	—	—	—	—	—	—	—	—	—	—	—
Plague ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TOTALS ...	1240	14	298	499	175	247	7	78	61	42	223	114	371	57	66	88	140	23	10	2	68	11	62	16	27	8	4

NOTE.—The Wards adopted for this Table are the same as those in Tables II. and IV.

Isolation Hospital—Rhondda (Ward 4).

Table IV.—Causes of, and Ages at, Death, during the Year 1904 (*continued on next page*).

CAUSES OF DEATH.	Deaths in or belonging to the whole District at subjoined Ages.							Deaths in or Belonging to WARDS (At all ages)										Total Deaths in Public Institutions in the District
	All Ages	Under 1 year	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards	Ward 1	Ward 2	Ward 3	Ward 4	Ward 5	Ward 6	Ward 7	Ward 8	Ward 9	Ward 10	
Small Pox	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Measles	102	32	68	1	—	1	—	4	3	5	4	6	20	12	16	9	23	—
Scarlet Fever	20	2	12	5	—	1	—	3	1	—	1	2	4	1	1	4	3	—
Whooping Cough	53	25	28	—	—	—	—	4	6	2	2	6	2	2	18	2	9	—
Diphtheria and Membranous Croup ...	32	2	21	7	1	1	—	—	2	2	1	7	10	3	3	3	1	6
Enteric and other Continued Fever ...	42	—	3	12	11	16	—	3	4	1	9	2	13	3	2	2	3	17
Influenza	14	—	2	1	—	9	2	—	2	2	—	1	1	2	2	3	1	—
Epidemic Diarrhœa	211	173	31	—	—	2	5	11	36	18	14	28	24	9	17	20	34	—
Rheumatic Fever	22	—	—	7	2	12	1	3	2	4	—	1	1	2	3	2	4	—
Puerperal Fever	9	—	—	—	4	5	—	—	—	—	—	1	2	—	4	2	—	—
Erysipelas	1	—	—	—	—	1	—	—	—	—	—	—	—	—	1	—	—	—
Venereal Diseases	5	4	—	—	—	1	—	—	1	1	—	—	1	—	1	1	—	—
Other Septic Diseases	15	3	3	3	2	2	2	1	3	—	2	—	3	2	—	3	1	1
Phthisis	115	2	2	2	22	86	1	6	10	18	9	15	10	9	11	15	12	—
General Tuberculosis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tabes Mesenterica	13	10	3	—	—	—	—	—	—	—	—	5	3	—	5	—	—	—
Other Forms of Tuberculosis	35	6	10	6	2	11	—	2	6	1	3	2	3	2	4	6	6	—
Cirrhosis of Liver	15	—	—	—	—	14	1	1	1	3	1	1	2	—	2	2	2	—
Gall Stones	1	—	—	—	—	—	1	—	—	1	—	—	—	—	—	—	—	—
Cancer, Malignant Disease	56	—	1	—	1	41	13	10	1	7	6	5	8	4	7	4	4	1
Pernicious Anæmia	8	—	—	—	1	6	1	1	—	1	1	2	—	—	3	—	—	—
Leucocythœmia	3	—	—	1	—	2	—	—	—	1	—	—	—	—	1	1	—	—
Rickets	5	3	2	—	—	—	—	—	—	2	—	—	—	1	—	2	—	—
Diabetes...	3	—	—	—	—	3	—	—	—	—	1	1	—	—	1	—	—	—
Meningitis	29	7	5	11	3	3	—	3	2	5	2	3	4	—	3	2	5	—

Table IV. *(contin.)*

								1	2	3	4	5	6	7	8	9	10	
General Paralysis of Insane	5	—	—	—	—	5	—	—	—	2	—	—	1	—	1	—	1	—
Epilepsy	7	—	—	—	—	7	—	—	—	1	—	1	2	1	2	—	—	—
Convulsions	135	123	10	1	—	1	—	9	13	18	8	8	11	12	13	20	23	—
Other Diseases of Nervous System	25	—	2	1	1	18	3	4	3	3	2	1	2	3	1	6	—	—
Heart Disease	133	1	1	6	9	84	32	10	16	10	14	8	8	9	19	21	18	1
Cerebral Hœmorrhage	52	—	—	—	1	29	22	5	7	5	3	5	4	6	3	5	9	—
Embolism and Thrombosis	15	—	—	—	1	8	6	1	5	1	2	—	3	—	1	1	1	1
Aneurysm	1	—	—	—	—	1	—	—	—	—	—	—	—	—	—	1	—	—
Croup	4	—	4	—	—	—	—	—	—	—	—	—	2	—	2	—	—	—
Acute Bronchitis	102	47	28	—	2	17	8	8	2	9	5	9	12	13	15	14	15	—
Chronic Bronchitis	74	—	—	—	—	36	38	6	4	6	4	12	6	6	8	12	10	—
Lobar Pnucmonia	71	2	10	5	3	46	5	8	13	3	5	9	8	5	6	11	3	—
Lobular Pneumonia	208	100	89	6	2	8	3	5	25	12	14	29	31	26	32	20	14	—
Pleurisy	4	1	1	—	—	2	—	1	—	—	2	—	—	—	—	1	—	—
Gastric Ulcer	6	—	—	—	2	4	—	1	—	2	—	1	1	—	—	1	—	—
Gastritis	45	31	3	—	1	8	2	11	2	2	8	1	1	2	6	5	7	—
Enteritis	46	36	8	—	—	1	1	1	8	5	8	2	9	—	2	8	3	1
Intestinal Obstruction	14	3	—	2	—	7	2	3	1	2	1	1	2	—	3	—	1	4
Peritonitis	6	—	—	—	3	3	—	1	1	—	—	—	1	—	2	1	—	—
Nephritis	33	—	—	2	3	25	3	2	3	1	3	10	5	3	2	3	1	—
Accidents of Child Birth	21	—	—	—	9	12	—	1	1	2	1	2	6	—	2	2	4	—
Skin Diseases	4	4	—	—	—	—	—	1	—	—	1	—	—	—	—	—	2	—
Dentition	29	23	6	—	—	—	—	—	—	1	—	5	5	10	2	1	5	—
Marasmus	39	37	2	—	—	—	—	4	3	—	—	3	6	15	5	3	—	—
Debility and Inanition	149	146	3	—	—	—	—	11	16	13	13	7	13	11	10	30	25	—
Congenital Defects	16	14	2	—	—	—	—	2	1	2	—	3	4	1	2	—	1	—
Premature Birth	69	69	—	—	—	—	—	10	4	1	5	7	13	5	8	4	12	—
Old Age	67	—	—	—	—	—	67	6	4	5	6	5	2	7	10	10	12	1
Inquests { Colliery Accidents	56	—	—	4	18	34	—	5	4	10	6	11	4	4	3	2	7	4
{ General Accidents	79	15	16	7	3	36	2	2	9	3	2	5	9	11	12	13	13	1
Tumours	4	—	1	—	—	3	—	1	—	1	1	—	1	—	—	—	—	—
All other Causes	17	4	2	—	2	7	2	2	—	3	2	—	2	2	3	—	3	—
Rhondda	2345	925	379	90	109	619	223	173	225	197	172	233	285	204	280	278	298	38

RAINFALL Returns at Ty'nywaun Waterworks, Treherbert.
Height above sea level, 801 feet.

Furnished by Mr. OCTAVIUS THOMAS, Water Engineer to the Council.

Month.	YEAR 1895.				YEAR 1896.				YEAR 1897			
	Total Depth	Greatest fall in 24 hours		Days ·01 or more fell	Total depth	Greatest fall in 24 hours		Days 01 or more fell.	Total depth	Greatest fall in 24 hours		Days' ·01 or more fell
		Depth	date			Depth	date			depth	date	
January ..	7·83	1·55	20	21	3·96	1·33	24	15	4·35	·72	6	17
February .	·16	·06	24	3	2·45	1·17	8	13	9·21	1·30	19	22
March ..	9·33	2·41	23	19	10·85	1·19	19	27	11·60	1·96	2	28
April ..	6·15	2·51	22	14	2·28	·49	10	17	9·30	2·36	17	22
May ..	·49	·25	31	4	·10	·11	21	2	3·70	·84	29	16
June ..	1·51	·72	30	8	3·62	·65	17	16	4·93	1·30	8	12
July ..	9·97	1·20	1	18	4·82	1·01	25	12	2·92	·80	25	14
August ..	10·46	2·14	26	20	5·06	1·03	24	15	11·79	1·49	29	25
September ..	2·69	1·51	10	9	12·57	2·39	24	25	9·98	1·89	1	17
October ..	5·58	1·17	5	16	9·37	1·9	6	19	4·51	1·51	15	11
November .	12·96	2·23	10	23	2·97	1·39	14	11	9·11	3·25	12	14
December	8·41	1·07	12	25	18·40	1·79	27	26	18·42	4·09	29	23
Totals ...	75·54	2·51	22	180	76·45	2·39	24	198	99·82	4·09	29	221
	YEAR 1898.				YEAR 1899.				YEAR 1900.			
January ...	6·06	1·07	5	15	15·11	3·26	20	22	11·60	2·36	6	24
February ...	6·13	94	25	23	8·53	1·18	12	14	12·17	3·48	15	21
March ..	2·66	·64	19	17	3·68	2·04	25	10	1·44	·50	18	8
April ...	5·26	·90	11	13	9·04	1·15	6	22	4·37	·60	3	17
May ...	5·32	·51	5	22	6·40	2·67	19	18	4·78	1·67	21	17
June ...	5·25	1·00	23	17	1·83	·82	30	9	6·47	1·30	24	18
July ...	1·83	·89	1	6	1·31	·38	1	12	2·95	·90	31	12
August ..	9·30	1·65	18	21	2·90	1·18	29	9	7·50	1·58	6	16
September ...	3·13	1·49	29	13	4·37	79	30	21	5·02	1·59	26	14
October ...	12·42	1·64	17	22	7·32	1·61	3	14	12·40	2·51	4	22
November ...	11·19	3·85	2	20	7·60	2·14	7	12	9·90	1·87	15	24
December .	16·23	3·04	26	26	5·96	1·33	28	23	16·30	1·61	30	24
Totals ..	84·78	3·85	2	215	74·05	3·26	20	186	94·90	3·48	15	217
	YEAR 1901.				YEAR 1902.				YEAR 1903.			
January ...	6·91	1·46	26	22	5·89	1·31	1	19	14·45	2·15	4	25
February ...	3·44	1·20	26	13	3·86	·90	22	11	7·83	1·11	22	21
March ..	6·25	1·51	29	15	5·19	·94	14	19	15·84	2·28	17	30
April ...	9·68	1·37	2	16	4·21	1·35	21	14	3·70	·98	25	16
May ..	2·42	1·43	30	9	3·99	·75	16	23	5·77	1·92	16	20
June ...	3·94	1·85	20	11	4·91	·70	30	19	1·85	·50	14	7
July .	2·25	1·15	25	10	3·67	1·24	26	14	4·90	1·48	21	19
August ...	7·57	2·31	13	17	4·53	·91	18	24	13·80	2·25	20	23
September ..	5·80	1·09	7	23	2·72	·82	2	15	9·19	1·61	8	20
October ...	5·09	·87	17	22	7·97	1·89	13	22	20·56	2·90	14	31
November ...	4·33	1·32	11	10	7·90	1·41	24	18	6·60	1·48	27	21
December ...	14·00	2·73	7	24	9·90	2·46	16	17	8·96	1·41	12	19
Totals .	71·78	2·73	7	192	64·70	2·46	16	215	113·45	2·9	14	252

RAINFALL RETURN AT TY'NYWAUN WATERWORKS, TREHERBERT.

5-inch Gauge. 801 feet above Sea Level.

YEAR 1904.

MONTH.	Total Depth	Greatest Fall in 24 hours.		Days ·01 or more fell
		Depth	*Date*	
January	13·84	2·42	26	23
February	10·20	1·31	12	24
March	4·31	1·21	28	18
April	6·07	1·39	2	18
May	5·22	1·36	23	23
June	2·86	95	14	10
July	5·67	1·10	22	17
August	6·46	1·36	3	17
September	5·32	1·23	30	14
October	5·67	1·79	16	15
November	6·30	1·44	9	16
December	8·71	1·60	4	24
TOTAL ..	80·63	2·42	26	219

METEOROLOGICAL RETURNS.

Furnished by MR. OCTAVIUS THOMAS, Water Engineer to the Council.

MAERDY (height above Sea Level—1,255 feet.

MONTH.	1900				1901				1902				1903				1904			
	Total Rainfall in Month in inches.	Days on which ·01 or more Rain fell.	Greatest fall in 24 hours.	D'te of Gre't'st f'll	Total Rainfall in Month in inches.	Days on which ·01 or more Rain fell.	Greatest fall in 24 hours.	D'te of Gr't'st fall.	Total Rainfall in Month in inches.	Days on which ·01 or more Rain fell.	Greatest fall in 24 hours.	D'te of Gr't'st fall.	Total Rainfall in Month in inches.	Days on which .01 or more rain fell.	Greatest fall in 24 hours.	D'te of Gr't'st fall.	Total Rainfall in Month in inches.	Days on which ·01 or more rain fell.	Greatest fall in 24 hours.	D'te of Gr't'st fall.
January	7·93	24	1·62	6	4.60	12	1.17	26	2·97	11	·48	4	8.84	22	1·63	4	9·47	21	1·50	26
Februa'y	7·90	17	1·71	15	2·49	9	·77	26	3·06	7	1·05	23	3·39	18	·87	24	7·20	19	1·13	9
March	1.23	7	·18	21	3·49	9	·85	29	3 55	14	·66	14	11·03	27	1·43	17	3·83	7	1·75	7
April ...	2·20	15	.46	3	6·94	15	1·15	2	3·29	8	1.00	21	2·91	13	·84	25	3 61	13	·83	2
May ...	3·59	14	1·00	21	1·92	9	·88	30	3 33	11	·58	17	4 66	14	1·20	16	4.97	16	1·22	24
June ...	4·75	17	·79	19	3·09	9	1·24	20	4·57	19	·65	30	1·81	6	·66	10	2·53	6	·77	14
July ...	2·55	11	·85	31	1·66	6	·84	25	2·87	9	·96	25	3·66	15	1·17	21	5·25	16	1·19	22
August	6·48	15	1·14	21	5·92	16	2.00	13	3·47	22	·60	18	10·52	21	1·50	14	5·76	12	1·71	3
Sept. ...	3·10	10	·71	30	4·74	20	·92	16	2 76	11	·64	23	6·87	15	1·08	24	4·51	11	·85	30
October	10 12	18	2·21	4	3·97	20	1.07	17	5·86	18	1·02	12	16·55	29	2·50	14	2·91	8	1·19	16
Nov. ...	7 88	21	1·53	15	3·19	7	1 08	11	6·68	15	·90	27	4·16	16	1,05	27	5·04	6	1·24	30
Dec. ...	9·62	22	1·20	16	9·48	21	2 06	31	5·31	12	1·15	1	6.78	15	1,00	12	6·55	15	1·00	4
Totals ...	67·35	191	2 21	4	51·49	153	2·06	31	47·72	157	1·15	1	81·18	211	2·50	14	61·63	150	1·75	7

Meteorological Returns.—The Hospital, Ystrad-Rhondda. (Height above sea level, 590 feet.)

MONTH.	1900				1901				1902				1903				1904			
	Total rainfall in month in inches	Days on which ·01 or more rain fall	Greatest fall in 24 hours	Date of Greatest Fall	Total rainfall in month in inches	Days on which ·01 or more rain fell	Greatest fall in 24 hours	Date of Greatest Fall	Total rainfall in month in inches	Days on which ·01 or more rain fell	Greatest fall in 24 hours	Date of Greatest Fall	Total rainfall in month in inches	Days on which ·01 or more rain fell	Greatest Fall in 24 hours	Date of Greatest Fall	Total rainfall in month in inches	Days on which ·01 on more rain fell	Greatest fall in 24 hours	Date of Greatest Fall
January ...	9·09	24	1·80	7	4·96	18	1·20	27	4·49	16	1·33	1	11·62	20	1·82	4	11·70	8	2·00	26
February ...	11·07	18	3·20	16	1·64	9	·90	27	2·94	9	·90	22	5·04	17	1·15	22	8·64	7	1·38	12
March ...	1·02	7	·43	20	5·06	14	·90	30	4·35	13	·97	14	13·51	23	2·22	17	3·52	17	1·00	28
April ...	2·64	13	·50	4	7·45	16	1·00	8	3·23	10	·87	4	2·44	10	·83	25	4·72	18	1·00	4
May ...	3·11	11	1·40	22	1·33	7	1·00	31	3·20	18	·52	27	4·46	18	1·57	16	4·70	14	1·54	23
June ...	3·95	15	1·00	25	3·42	10	1·60	21	4·07	18	·53	29	1·74	9	·58	14	2·25	6	1·00	14
July ...	1·23	11	·50	1	2·33	10	·60	26	2·87	9	1·20	26	5·83	13	1·13	22	5·28	13	1·15	25
August ..	7·26	16	1·30	3	6·50	14	1·50	14	4·64	17	·87	25	12·40	26	1·79	14	5·43	17	1·27	21
September ...	3·13	11	1·30	27	4·28	14	1·14	16	2·68	10	·65	23	7·46	20	1·24	10	5·10	13	1·00	30
October ...	10·25	20	1·90	5	3·38	18	·64	24	6·76	16	1·28	13	17·74	31	1·98	14	3·21	11	1·24	7
November ...	9·06	21	1·40	16	3·16	7	·91	11	5·60	16	1·25	8	4·53	18	1·24	27	5·27	14	1·43	7
December ...	11·98	23	1·50	31	11·62	20	1·84	7	6·69	14	1·24	16	7·61	16	1·29	3	7·09	21	1·04	4
Totals ...	73·79	190	3·20	16	55·13	157	1·84	7	51·52	166	1·33	1	94·38	221	2·22	17	66·91	159	2·00	26